S. HRG. 98-150—PART 9

MANAGEMENT OF THE DEPARTMENT OF DEFENSE

HEARING

BEFORE THE

COMMITTEE ON GOVERNMENTAL AFFAIRS UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

SECOND SESSION

PART 9

OVERSIGHT OF THE SGT. YORK (DIVAD) AIR DEFENSE GUN AND THE DSARC DECISIONMAKING PROCESS

SEPTEMBER 28, 1984

Printed for the use of the Committee on Governmental Affairs

U.S. GOVERNMENT PRINTING OFFICE
41-340 O WASHINGTON : 1985

9401-23

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MANAGEMENT OF THE DEPARTMENT OF DEFENSE

FRIDAY, SEPTEMBER 28, 1984

U.S. SENATE,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The committee met at 9:04 a.m., in room SD-342, Dirksen Senate Office Building, Hon. William V. Roth, Jr. (chairman of the committee) presiding.

Present: Senators Roth, Cohen, Rudman, Levin, and Bingaman.

OPENING STATEMENT OF SENATOR ROTH

Chairman ROTH. The committee will please be in order.

We convene today to review a recent report from the Defense inspector general concerning the production decision on the Divad, sometimes referred to as the Sergeant York. The inspector general made this review as a result of a hotline allegation that inadequate information concerning the reaction and effectiveness of the Divad gun was used in making the decision to proceed with the production of this weapon.

I am today releasing, Mr. Sherick, the unclassified version of this report.[1] In so doing, let me make a few points clear at the outset.

No. 1, I want to congratulate you for this report. I think it shows the importance of having an independent inspector general. I was and am pleased by the fact that the administration did support the creation of this inspector general which was something that had been in the making many years but had been fought very actively in the past by other administrations.

I would like to make very clear, I am not attacking the weapon system itself. I gather that if it would work, it would be very valuable to us. But what I am criticizing is that we are making these production decisions without adequate information. The thing that bothers me as much as anything is not only the fact that we made this decision without adequate information but when we read your report, Mr. Sherick, in which you spell out the problems in this particular case, you say that the DSARC was not conducted in accordance with existing directives in that all required documentation was not available in the specified timeframes. The complete operational test results were not released by the Army Operational Test and Evaluation Agency until November 1982, several months after the final DSARC III decision had been made in 1982.

[1] See p. 63.

I read the response of the Under Secretary of Defense, to your report to be in direct conflict with your findings. The thing that bothers me the most is that mistakes are going to be made, but for some reason no one ever admits mistakes. It reminds me of a 5-year-old child who has always got some alibi for not doing what they are supposed to be doing. For example, the Under Secretary says, "In summary, we feel that you have provided no evidence or strong rationale for changing DSARC procedures. In fact, from a process standpoint, it is functioning almost exactly as you recommend."

I find that hard to reconcile with your report. It bothers me that he ends up by saying a decision was made to produce the Divad based on the best information available, and yet today the very same program is being reviewed in detail by the Secretary of Defense.

I am bothered, Mr. Sherick.

As I understand the situation, No. 1, we did not have adequate testing, operational testing on the Divad. Point No. 1.

Point No. 2, there have been some serious questions raised as to the accuracy of the information that was presented to the decision-makers.

Finally, I don't know how the Under Secretary can say that the production decision was made based on the best information available at the time because the operational test information, whether or not the tests were adequate, was not evaluated until several months, I think something like 7 months, after the production decision was made.

I understand the Army wants the weapon. I understand the importance of proceeding as rapidly as possible. But I must say that I don't like this concept of "buy now and fix later." Production, full scale production, ought to wait until we have operationally tested weapons to see whether or not they will operate in the field as intended, under the control of the kind of people that you will actually have running it.

I see that lacking. I am very bothered by the fact that many months later, after we, Congress, voted to create an independent operational test office, we do not yet see it functioning or the top man in the office even in the job yet. The very thing we have been talking about here, poor testing procedures has been a problem with this system. As currently drawn, it is not working, and we are talking about big bucks, not small.

We are not at war, so while time is of the essence, we are not in a situation where we can't make sure before we proceed to production. So I want to, again, congratulate you, Mr. Sherick, for your report. I am hopeful that it will result in some meaningful change. Of course, we face the question of where do we go with this particular system.

[Senator Roth's prepared statement follows:]

PREPARED STATEMENT OF SENATOR WILLIAM V. ROTH, JR.

We convene today to review a recent report from the Defense Inspector General concerning the production decision on the Division Air Defense Gun or DIVAD, also known as the Sergeant York. The Inspector General reviewed a "hotline" allegation that inaccurate or inadequate information concerning the reaction and effectiveness

of the DIVAD gun was used in making the decision to proceed with the development of this weapon. I am today releasing an unclassified version of that report.

I am very concerned about the implications of the findings made by the Defense Inspector General not just because of what they say about the DIVAD but even more because of what they say about the decision making process for production of major weapons. I'm afraid this report confirms our worst fears about the Pentagon's "hurry-up-and-buy" approach to new weapon systems. I was extremely disappointed to learn that once again the Pentagon, in its eagerness to field a new weapon, has given short shrift to questions of cost, effectiveness and safety. In this case, as in far too many others, the Defense Department has made a production decision on a multibillion dollar weapon based on inadequate information—information which was only partially complete, and, as a result misleading.

Even more disturbing is the evidence that decision makers are aware in some cases that critical information is not available on the performance and effectiveness of these weapons—and yet they plunge ahead with a final production decision, regardless of the importance of the missing data.

How can anyone explain a decision to commit billions of dollars to the production of the DIVAD gun when, according to the Defense Inspector General, statements by those "participating in the production decision" indicated they were aware that important test data was missing? Obviously, the Army believes it is important to have the DIVAD in its arsenal. But is it so important that we can't wait a few months to make sure we have all the facts before going ahead with production?

Just as critical to me as the fact that important data was not available on the DIVAD is the *type* of data that was missing. I have felt for some time that operational testing is often far too low a priority in the procurement of weaponry. In the case of the DIVAD, once again, the most critical information—the operational testing results, were not available when the production decision was made.

Operational tests are designed to show whether or not a weapon will work effectively in the field to protect our soldiers, airmen and sailors. Why would anyone want to go ahead with a decision to produce a weapon without knowing, through stringent operational tests, that it will work properly in the life-or-death test of actual combat? Yet the DIVAD report shows that the Army somehow managed to produce data on the DIVAD's developmental test results for top decision makers—but not on the operational tests, even though both sets of tests were completed well before the May 1982 production decision.

Some may argue that we cannot afford the expense of delay while waiting for all the necessary data to come in—that we can always fix the problems later. I would say to those people that they are dead wrong—that we cannot afford not to wait until all the facts are in, because nothing less than the safety and effectiveness of our fighting forces hangs in the balance. We cannot afford a procurement policy of "buy now/bandage later."

This report indicates that top Pentagon officials have delegated so much authority to lower levels that the decision makers often are unaware of problems in a system and may not fully utilize available information to make important decisions. To quote from the IG report, "The DSARC (or decision making) process, as presently formulated, does not provide sufficient insight to the decision makers. Under the current operating structure, the OSD staff members, who are responsible for formulating policy decisions, are not made aware of programmatic issues and shortcomings."

What's happening, it seems to me, is that many of these systems are developed within the individual services, they take on a momentum, like a giant snowball, which becomes almost impossible to slow down by the time the system reaches the Secretary of Defense for a "buy/don't buy" decision. Without complete and adequate information, as we learn from this DIVAD report, top-level decision makers have even less of an opportunity to stop or slow down potentially flawed weapon programs.

I tried to deal with this problem by introducing an amemdment to the 1984 Defense bill which established an independent Office of Operational Test and Evaluation to advise the Secretary of Defense on the operational readiness of weapon systems. The director of this office was supposed to provide a needed counterbalance to the many voices in the Pentagon crying for "production now" despite inadequate information or test data indicating problems.

Unfortunately, more than a year after the passage of my amendment, this office is still without a director. Based on the information in Mr. Sherick's report, I feel strongly than ever that the Department must move ahead now to get this office staffed and operational.

I want to make sure that the Secretary of Defense, as the key official responsible for our defense programs, is given all the information he needs to make critical decisions on weapon programs. This IG report indicates that he may not be getting it, and I want to know what is being done to insure that he does get this information in the future.

Chairman ROTH. I would like to ask Jeff, would you care to make any comments at this time?

OPENING STATEMENT OF SENATOR BINGAMAN

Senator BINGAMAN. Mr. Chairman, I really don't have a prepared opening statement, but let me say this is an issue that I commend the chairman for holding this hearing. We have spent a lot of time, of course, in the Senate Armed Services Committee on the same problem, and have language in the defense authorization bill and the defense appropriation bill on the subject. I think it points out some of the problems in our acquisition bill.

Chairman ROTH. Senator Rudman.

OPENING STATEMENT OF SENATOR RUDMAN

Senator RUDMAN. Mr. Chairman, thank you very much. I want to make just a couple of observations. No. 1, I think it is just excellent timing, Mr. Chairman, that you called this hearing this morning, because the day before yesterday, in the Defense Appropriations Subcommittee, Senator Stevens and I moved to zero the funding for this program for next year. Whether that will be the eventual result after we confer with the House on their number, which is obviously considerably higher, we will see when we come out.

But I want to state something publicly here, something that some of the folks across the river may not know. I'm not even sure that Mr. Sherick knows it. But that action that we took last week was made on information that I have of the most confidential nature, in-house Army information, which, in my view, is a horrible indictment of some of the people that furnished the test results to the higher officials of the Army.

As a matter of fact, Mr. Chairman, looking back at my prior life before coming here, I believe that had that information been submitted to a Federal court in a discovery proceeding, it would have given a basis for holding the furnishers of the information in contempt. I think that it might well have established a basis of criminal indictment for perjury.

I know that is a strong statement, but in the coming months, I intend to prove it. I am not as familiar with some of the audit track information that Inspector General Sherick has furnished, although I have read it, but I believe that those at the highest levels of the Army are people of integrity, and I believe that they have been lied to by their own people. I intend in the Defense Appropriations Subcommittee, and I hope with this committee, Mr. Chairman, next year, to use this as an example in a detailed way in classified sessions, if that is necessary, to determine how it is possible, with the extraordinary amount of money that we spend on testing, to end up making a silk purse out of a sow's ear.

Some of the test results here have been grossly misrepresented and some which were egregiously accurate in terms of what they show were essentially thrown out and not represented to the re-

viewing authority. Let me just say generally that some of the electric countermeasure tests that were performed were so woefully unrealistic that I have to believe that people set out in this initial testing requested by the Secretary simply to come up with enough information to justify the program's continuation.

The bottom line, Mr. Chairman, in my view, is not whether or not—you know, we have got the right kind of testing or whether this skunk works approach is the way to do it. The bottom line is that we are on the verge of deploying a system in the field that our troops would find wholly inadequate if faced with combat, and that bothers me a great deal.

Because the bottom line is that the American soldier ought to have the best equipment possible. At least it ought to work. So I intend, Mr. Chairman, next year, both in Defense Appropriations, and I know with your cooperation, because you have taken a leadership role on this whole issue, to find out who is lying to whom.

I think this is serious, and I'm going to tell you, we are going to end up, as far as I'm concerned, never mind with the people out front, we are going to get the people who did the work in a hearing room, and are finally going to get these test results as they were reported. I have some documents which I have in my possession, which I will not make public until some time later this year or next year which I think, when seen by some of the higher officials of the Army, are going to cause a great deal of concern.

Chairman ROTH. Just let me say that I concur in your determination to move ahead. I want to tell any representatives from the Army or Defense Department that until we find out in these cases, Mr. Sherick, who is responsible and accountable for providing inadequate or inaccurate information, we are not going to correct the situation.

I agree with what Senator Rudman has said, that top officials are honest and want to do what is right. But accurate or sound decisions cannot be made unless accurate information is supplied to them.

No longer can we afford to let go unpunished either those within the Department of Defense who do not supply accurate information or, as far as I'm concerned, the same is true of contractors. We have got to take action to correct the situation or we are going to be spending the next 10 years exposing problems with nothing happening.

So I want the message to get back to the Pentagon that we expect the leaders there to ferret out the information and take appropriate action and not try to cover over as I find too often is the case.

Well, we have gone on long enough, and we are here to hear you, Mr. Sherick. Will you please proceed with your testimony.

TESTIMONY OF JOSEPH H. SHERICK, INSPECTOR GENERAL, DEPARTMENT OF DEFENSE, ACCOMPANIED BY DEREK J. VANDER SCHAAF, DEPUTY INSPECTOR GENERAL

Mr. SHERICK. Yes, sir. Mr. Chairman, I am pleased to respond to your request for my views regarding the recent work in the DSARC process as it involved the Army division air defense gun.

Since the committee has the full classified report of the review of the DSARC process, I will not go deeply into the details, but highlight our findings, conclusions, and recommendations on the matter.

Mr. Chairman, as you know, we have a hotline system in the Department of Defense in which we encourage employees to report allegations of fraud, waste and abuse to the inspector general. We agree to investigate these allegations, protect the identity of the complainant, and make the results of our work known to the appropriate authorities.

Our work on the Divad production decision DSARC was initiated in response to such a complaint. The gist of the complaint was that the test data presented by the Army at the DSARC III meeting of May 4, 1982, which was the production decision, were known to be false. Specifically, it was alleged that the system engagement kill product was overstated and the system reaction time was understated.

I should also acknowledge, Mr. Chairman, your letter of May 4, 1984, which we received while our work was progressing and which raised essentially the same issues.

The Divad gun program was authorized to use for its procurement an accelerated unconventional acquisition strategy which was approved at a 1977 DSARC meeting when initiation of the program was approved. That strategy called for the maximum use of existing proven components, minimum Government intervention, and maximum contractor flexibility in making the engineering judgments to achieve the desired performance and the earliest possible operational capability.

Additionally, the Army adopted a "skunk works" approach that allowed the contractor to use in-house initiatives and resources during the engineering development to further refine the technical characteristics of the weapon system.

Throughout development and early production, the Army applied a "hands-off" policy in which the Army decided and the contractor had full responsibility for system design and production to meet established system specification and performance requirements. Government direction was minimized until delivery of the 51st Divad gun system.

A consequence of this strategy was that it afforded minimal test information to the Government. As a result of the deficiencies noted in the limited contractor and Government testing prior to DSARC II, which was the engineering development decision, a follow-on check test was planned to confirm contractor generated fixes prior to entering the production decision.

This check test was conducted in late 1981. When the DSARC reviewed the Divad program in the spring of 1982, the available test results were from the earlier, rather restricted period when there were competing contractors, and from the preliminary results of the check test.

The allegation about faulty presentation of Divad performance centers on how well, or how poorly, the Army used the detailed test results with particular emphasis on the check test results to construct a summary level statement of system performance for the DSARC principals.

For the committee to understand our view on this central question, it is necessary for me to first describe the DSARC process. Existing regulations require the proponent service to submit a draft decision coordinating paper, a draft test and evaluation master plan, and other documentation 3 months prior to a given DSARC meeting.

These documents then serve as the basis for review, comment, and development of issues by the staff of the Office of the Secretary of Defense. The proponent service is also required to brief the Office of the Secretary of Defense cost analysis improvement group on cost, the directors for defense test and evaluation and for operational test and evaluation on test plans and results, the Defense Intelligence Agency on the threat, and the staff of the Assistant Secretary of Defense—Manpower, Installations and Logistics—on the logistical considerations of the system. If these briefings surface issues, they are discussed at the Office of the Secretary of Defense prebrief which occurs approximately 2 weeks before the DSARC meeting.

We have no problem with the process just described and required by existing regulations. It is intended to be a quality assurance check on the input data used to make important decisions on major acquisition programs. It is intended to generate the right issues to be debated before these decisions are made and to provide the decisionmakers with a good, factual understanding to use in their evaluation of those issues.

Returning now to the specific, Divad, the question there concerns the adequacy or quality of the documentation made available to the principals upon which to make the major program decision. In the case of this weapon system, the decision coordinating paper and test and evaluation master plan were submitted as required. The directed briefings were conducted. The right issues were generated.

Our concern is whether the whole process for the DSARC resulted in a good understanding of the demonstrated and reasonably predicted performance of the system is a realistic operational environment.

There were two elements of the "check test," a development test portion and an operational test portion. The Army presentations during the DSARC III process relied on data derived solely from the development test portion. Data from the operational test portion as well as data from the electronic countermeasure testing and the check test, were not made available to the Office of the Secretary staff for review prior to the DSARC.

The complete Operational Test results were not released by the Army until November 1982, 7 months after the DSARC presentation was made in May 1982.

The major item of contention at the DSARC III meeting was limited to the effectiveness of the system at the longer standoff ranges of the evolving threat. Also, some participants were concerned that the gun would not be able to react as far to the threat as the threat could react to the gun.

The Army, in rebuttal, showed the DSARC principals certain charts which depicted a high level of effectiveness at long range and a rapid reaction time compared to the threat. These charts

were oversimplified, and therefore, misleading and based on selective analysis of the results of the development test portion of the check test. They also used several overly optimistic performance assumptions.

Statements by Army personnel during the course of our hotline review suggested that even though summary level charts were oversimplified, all participants were aware of these factors from the numerous informal meetings held prior to the DSARC.

It is because these statements cannot be disproved that we must conclude that there were no deliberate misstatements by the Army. However, Senator Rudman indicates that he has other information that would prove that this is not true. We didn't have access to that information.

Senator RUDMAN. Mr. Chairman, could we just ask him to expand on that a bit?

Chairman ROTH. Yes.

Senator RUDMAN. That is a very important point. When you say no deliberate misstatements, you mean no deliberate—statements that were knowingly false, but you were not saying that that was the withholding of information that was true?

Mr. SHERICK. Absolutely. That is perfectly clear. They showed them the development test data but not the operational test data.

Senator RUDMAN. So what you are saying is that there were no errors of commission, but there, were errors of omission?

Mr. SHERICK. That is correct, and nobody asked the right questions.

Chairman ROTH. Let me ask you an additional question.

You say you didn't have all the information or possibly didn't have certain information that Senator Rudman had.

Mr. SHERICK. I'm not familiar with that.

Chairman ROTH. Let me ask you this question: Was all information made available to you that you requested?

Mr. SHERICK. Yes, sir. We had all the information, but we didn't know what motivated people to do what was done; we just couldn't prove that they were motivated in such a way that they attempted to deceive. We couldn't prove that.

As Senator Rudman said, they just didn't provide all the information, and nobody asked for it and that was the problem, and we couldn't find anybody who did ask for it.

Senator RUDMAN. Mr. Chairman, if I just might for the moment make an observation or question. You could not prove that anybody deliberately gave false information?

Mr. SHERICK. That is it.

Senator RUDMAN. At that review. You could not prove that. We understand that. But you certainly can prove that there was information in existence that should have been furnished by any reasonable standard that was not. Is that correct?

Mr. SHERICK. That is right, and that is what the rest of my statement says.

Senator RUDMAN. All right, and that is very, very important. That is the significant point of this entire hearing.

Mr. SHERICK. Yes.

Chairman ROTH. Just let me underscore that we are not a court where we have to prove certain facts. What we are trying to show

or determine is the adequacy of the job done in this case, a very important factor.

Mr. SHERICK. OK; it is also for this reason that we thought the DSARC process for Divad was unsatisfactory.

Even though the basic documentation requirements were complied with, we could find no evidence that there was a consensus of opinion by the Office of the Secretary of Defense decisionmakers on any objective measure of expected gun performance in a battlefield setting.

The need for operational test results is generally recognized as basic to all DSARC III production milestones. That is what it is all about.

David Packard's "fly before buy" is what operational testing is, and we feel that it is basic to that decision.

Based on these findings, we have made specific recommendations to improve the DSARC process. While disputing whether our report identified deficiencies that were present in the Divad DSARC, the defense acquisition executive, Dr. DeLauer, agrees with our recommendations. We also recommend that the appropriate Office of the Secretary of Defense decisionmaking officials take a fresh look at the Divad Program before making a commitment to further production.

This recommendation, we feel, is appropriate because we are looking at actions in late 1981 and early 1982. Additional test information and threat projections are now available, and the Secretary of Defense has decided to conduct these additional reviews for this program. He is now doing it.

Chairman ROTH. How many units have we ordered under existing contract?

Mr. SHERICK. I think there are 50-some was the first—117?

Mr. VANDER SCHAAF. 117 here.

Mr. SHERICK. 117 each year.

Chairman ROTH. What is the contractual cost for those numbers?

Mr. SHERICK. I think the total is $1.6 billion.

The decision on option 3 to the contract, which continues the production, is being made now, or rather the review is being made now for the commitment of that option, which I think is due November 4 of this year.

Mr. Chairman, in your letter inviting me to this hearing, you raised three specific questions which I would like to address.

Your first question was, why did officials decide to go ahead with the production on the Divad even though they knew that the important operational testing data was missing? My response to this question is, I'm not sure.

The question would be better addressed to the DSARC personnel. I would speculate that the reason had to do with the following: A fairly high confidence level that whatever problems were encountered in development testing, plus those to be encountered in operational testing, could be overcome.

This is the success-oriented approach to weapon system development which causes problems all over on many, many systems.

They wanted a decision to achieve the earliest possible operation capability. They wanted to field the item because they feel that there is an absolute need for it, and they had a belief that the use

of proven components—they took weapon systems where the components were already being used—and an accelerated operations strategy would produce an acceptable level of performance. In other words, if they took components that were already proven, put them together, they would have to work effectively.

That is merely conjecture. I would say that you would have to talk to the DSARC members to get their justification.

Your second question is, What does this particular incident tell us about the overall acquisition process? Is the decentralized procurement process affecting the ability of the Secretary of Defense and other top officials to make informed decisions? Did the Army decision to use a hands-off heavily concurrent and accelerated acquisition strategy for Divad contribute to the problems the program has encountered?

My response to that is that the policy of controlled decentralization has two obvious aspects to it: The first is control, and the second is decentralization. Both terms really involve questions of degree.

I personally believe that the policy can work if the degree of control and discipline and, indeed, the degree of decentralization are kept in balance. The DSARC is one opportunity for the highest level of the Department of Defense to exert control and discipline on the system.

My recommendations on the DSARC process are designed to ensure that such opportunities are well exercised.

Basically, I feel that the rules are there. If you live by the rules, you probably wouldn't be making the kinds of mistakes that were made here. That is the problem. We ignored our own rules.

Similarly, an accelerated acquisition stretegy does not necessarily mean total handsoff by the Government. If it means handsoff of every detailed decision that is best handled at the grass roots level, I support it. However, this strategy should not have application to periodic, top level critical reviews such as the DSARC.

Your third question was, What was the current status of operational testing in the Department of Defense? Is operational testing in the Army and throughout the Department given the serious attention it deserves?

I believe that the state of operational testing in the Department of Defense is better today than it was 15 months ago when my Deputy testified on its weaknesses.

As a result of congressional direction and establishment of an Office of the Director of Operational Test and Evaluation, and other emphasis from this Hill and from the Secretary of Defense, I think that the whole interest in the need for operational testing has been strengthened. I am disappointed that the position of Director hasn't been filled. They have an Acting Director, they are staffing, and I think that with the establishment of an independent operational test Director we will see a positive impact on the availability of adequate operational test information in future DSARC decisions.

Mr. Chairman, thank you for the opportunity to offer my views. I would be pleased to answer any questions.

Chairman ROTH. Thank you, Mr. Sherick.

Let me just make one comment on operational testing. I have two concerns. One is the fact that months have passed by. We don't have a new head yet for the operational testing office. Second, the legislation that created the Office is being construed too narrowly. I think that is a serious mistake. The importance of operational testing is to address the problem raised by Senator Rudman, that before we go into production, full-scale production, we ought to know whether or not the weapon or system or whatever they are buying will operate in the field as intended.

Mr. SHERICK. Absolutely.

Chairman ROTH. To me, that is what is so outrageous about the current situation. We have already procured 100 and what, 146 of these? 143?

Mr. SHERICK. 146.

Mr. VANDER SCHAAF. I believe there is a total of 146 in the two options that have been exercised.

Chairman ROTH. We have exercised two options, and yet we don't know whether or not it would function as it should in the field, which brings me to another problem I have.

I don't know how many have seen this advertisement by Ford Aerospace & Communication Corp. I would like to ask you whether you think this is an accurate description of this. It says:

> Each Sergeant York protects over 10 times its own unit cost in other armored assets. Sergeant York is the only system with fire on the move, all weather capabilities that can defeat the threat of fixed wing aircraft and stand off helicopters in the forward battle area. It is the most effective air gun defense system in the world.

Is that an accurate system today?

Mr. SHERICK. I would defer to the GAO who has looked at the results of the operational testing, but I certainly wouldn't subscribe to that description.

Chairman ROTH. "Every Sergeant York unit meets demanding performance and reliability requirements, and is backed by one of the most stringent warranties for any major weapon system."

Let me ask you that question: Where do we stand on the warranties? How many have we actually received, do you know?

Mr. SHERICK. As I know, it is a fixed price contract, and they are supposed to provide to us these systems that will meet all the warranties and standards. The company has committed themselves to that, and the risk is with them. I mean, that was the idea of the whole competition, that we would finally get a weapon system where the company was committed to delivering systems that worked and were according to specs. As I understand it, the Army has not accepted any of them for field use, and it is the company's problem to make them meet the agreed upon contract performance specifications.

Chairman ROTH. You made some reference, Mr. Sherick, to the lack of strong oversight and that there were other weapon programs on which there were similar problems.

Could you be more specific as to what other programs?

Mr. SHERICK. As I said, the one thing that we have to understand is that these are development programs. Even though we are taking known components, we were doing things with them that had not been done with those components, for instance, the radar, it is an F-16 radar that wasn't developed to look into the kind of

clutter on the ground that the radar is expected to look at on a Sergeant York weapon. Even though we were taking a gun that was developed and radars and the chassis and other developed parts, there was a systems integration problem.

We had to make them play together.

Chairman ROTH. May I interrupt? Because I want to make a point very clear.

Mr. SHERICK. Yes.

Chairman ROTH. All of us, I think, understand and appreciate the fact that in these weapon systems we are making technological breakthroughs. We are not buying a car that has been produced year after year or a building, although we have some problems constructing buildings on the Hill, I might add. But nevertheless, this is probably the most complex area of procurement involved in the Government.

It would be a mistake to say that we are critical or don't understand that there are going to be problems if you are trying to develop a new weapon system. It is not that problem we are addressing.

What we are addressing is the failure of the system to ensure that before we move from development into production we know we are buying good equipment we seek to give to our GI's and that is what bothers me.

I'm not critical. I have no grounds at this point to say that the inadequacy of the system is a failure of good research and development. Maybe there is legitimate reason for that but I find it very difficult to justify under any condition that we move ahead, not once, but twice, with large procurements when we don't know whether it will operationally satisfy requirements. That is the question I would like to address to you.

How many other systems are there that are like this?

Mr. SHERICK. What I was leading to is that basically the people that are developing the system are success oriented. They feel that they can do almost anything. And they don't recognize the unknowns that are in the system and what we used to call the unknown unknowns, the "umk-umks". There is no question it is there, but they still drive forward and say that whatever we miss we will catch up on later.

Chairman ROTH. Buy now, fix later.

Mr. VANDER SCHAAF. Senator, if I could interrupt for a moment, we are looking at this in a broader scope in the inspector general's office. We have got a series of audits under way where we are looking at the DSARC process on a real time basis. We are trying to ensure, for certain weapon systems—and we obviously haven't got the resources to check them all—that that information is required. Mr. Sherick read it in his statement. Before a person holds a DSARC meeting, the information should be presented to the officials in a timely matter, should all be available and to the best of our ability, should be complete.

Now, so far, since we have been in existence, we have completed nine reports of nine different weapon systems. I won't bore you with the details of those 9 systems, but we have got 7 more, I believe, and there are 84 programs. Some of these won't get complet-

ed before the end of calendar year 1984, but they will be completed shortly thereafter.

Generally, what we found are a series of problems, and we have classified them in two groups: One is sometimes a lack of documentation. The only document that is consistently provided to the DSARC members in every single instance is the mission element need document, the requirement of need document. That always seems to be available. But certain other documents didn't arrive in time, we felt, to do the job. We finished, as I said, nine separate reports in the Department, and we summarize them in another report in which we go into these problems in more detail, and we have made some recommendations in that report.

Such as, if these documents are not available, the DSARC should be slipped. They have been slipped in many, many cases, and for good reason, and we have gotten good management support on that. We have also gone a step further and said, if you slip this program for a very long period of time, you ought to stop funding, or you ought to get a very good explanation of why it is being held. Don't just allow the service to say, we are not ready for a DSARC, we will admit that, but give no further explanation of what the problem is. The project goes into limbo for 12 months, but in the meantime, money keeps flowing in the direction of the program. We feel that senior management deserves a better explanation than that. I can tell you that much about this problem.

Mr. SHERICK. What we are trying to do is give them timely audit advice. We can go on forever, and we have in the audit community, telling people 3 years after a program goes sour. By that time everybody knows it is sour.

What we are trying to do is get in the system on real time and tell people to advise the decisionmakers as they are ready to make decisions, hey, hold the phone. You are not ready, the data is not there.

That is how we are trying to correct the problem and as Mr. Vander Schaaf indicates, in those instances where we have been able to do that, management has been responsive. Because as you indicated earlier, they don't want to be deceived. They don't want to make dumb decisions. The problem always comes up, what do we do with the contractor? How do we keep the team together? How do we cover his costs while he goes back and recoups.

Those are the kinds of problems that they face, but they are management problems. That is what we get paid for solving. I think what we are trying to do is to give the decisionmakers real-time, independent, advice by saying don't listen to these people who say that everything is ready, because it is not. That is what I think the inspector general and the GAO in their reviews of weapon systems ought to do, give them real-time advice instead of being, as our critics say, the individuals who come down from the hills after the battle and shoot the wounded. I think we have to be down there during the battle.

Chairman ROTH. Let me say I think we have two problems before this committee today: One has been partially addressed by the authorization committee. What do we do with this particular weapon system?

Mr. SHERICK. I think so too.

Chairman ROTH. The second problem is the question of how do we get an effective system that ensures adequate operational testing. Frankly, I am a little leery of people, not making reference to you, but witnesses in the past, like the statement of the Under Secretary of Defense, that everything is hunky-dory when we know it is not.

What we want to see is some will to redirect and remedy. I think you are not going to achieve anything until we start beginning to hold those responsible for supplying inadequate information or not making adequate tests that their careers are affected. If they are private contractors, their contractors are affected. We can no longer afford to try to cover up for these mistakes.

The one question I would like to get back to is what other weapon systems have you studied in which you feel there has been inadequate information? If you don't have that today. I would ask you to supply it to the committee.

Mr. SHERICK. Yes, sir. I think we have issued our report.

Mr. VANDER SCHAAF. We have issued a report.

[Letter to Senator Roth, with enclosure, follows:]

DEPARTMENT OF DEFENSE,
OFFICE OF THE INSPECTOR GENERAL,
Washington, DC, October 5, 1984.

Hon. WILLIAM V. ROTH, Jr.,
Chairman, Committee on Governmental Affairs,
U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: During the September 28, 1984 hearing on the production decisions of the Division Air Defense (Divad) Gun System, it was agreed that copies of the Office of Inspector General audit reports on the effectiveness of the Defense Systems Acquisition Review Council (DSARC) process would be provided. Enclosed are the nine audit reports.

An unclassified summary report on the effectiveness of the DSARC review process for the first six weapon systems studied, is being prepared and will be provided when completed.

Sincerely,

DEREK J. VANDER SCHAAF,
Deputy Inspector General.

Enclosures.

INDEX OF DOD INSPECTOR GENERAL AUDIT REPORTS ON THE EFFECTIVENESS OF THE DEFENSE SYSTEMS ACQUISITION REVIEW PROCESS

A—Tactical Towed Array Sonar (Secret), February 17, 1983.
B—Carrier Variant Helicopter (Confidential), June 3, 1983.
C—MARK XV Cooperative Identification System, December 15, 1983.
D—M109 Self-Propelled Howitzer Improvement Program, January 17, 1984.
E—Short-Range Air Defense Command and Control System, January 31, 1984.
F—Space Based Space Surveillance System, February 21, 1981.
G—Joint Anti-Tactical Missile System (Secret), June 27, 1984.
H—Enhanced Joint Tactical Distribution System August 9, 1984.
I—Guided Anti-Armor Mortor Projectile, August 16, 1984.

Chairman ROTH. We have used the early bird rule. My time has expired. I will call upon Jeff.

Senator BINGAMAN. Thank you, Mr. Chairman. Let me ask a couple of questions, if I could, to try to understand this situation.

As I understand it, the real problem or one of the real problems here is what you refer to in your testimony as the accelerated unconventional acquisition strategy that was used in the case of Divad.

That is often referred to as concurrency in production and testing. My information is that the first Divad gun was authorized and appropriated by us here in Congress, the first 50 of them in 1981 for fiscal 1982.

The second, 96 guns, were appropriated and authorized in 1982 for 1983, the third 130 guns in 1983 for fiscal year 1984, and really, all of that was done without us having any production models that we could test.

Mr. SHERICK. That is right.

Senator BINGAMAN. Therefore, I think that Congress has to share in the blame for allowing the Defense Department to go forward with this production without us having adequate test results.

Is that basically your conclusion?

Mr. SHERICK. I think the critical item was the fact that until the 51st production item came off the line, we didn't really get involved in the engineering. It was the hands-off engineering that led to the absence of test data.

Senator BINGAMAN. Harold Brown, in his book "Thinking About National Security," has a sentence that I think applies very well here. He says:

> It is a sensible management practice on the part of the Secretary of Defense to have the production of each new system carried out at only a low rate until the development and operational testing have adequately demonstrated performance and reliability.

That is exactly what was not done in this case as I understand your testimony.

Mr. SHERICK. I think David Packard said it even better. He said "fly before buy." Low rate production, that is what we had here.

This contract was placed in 1977 when Harold Brown was Secretary of Defense, so I think fly before buy is even better. You see what it can do before you say, "Go ahead and produce it."

Senator BINGAMAN. Let me ask you something about the internal workings of the Defense Department over there. Last year in the Defense authorization bill, we put in a requirement that—and it was in reaction to GAO's report in January 1983—we put in a requirement that the Army Secretary tell us 30 days before spending any of the fiscal year 1984 money for Divad, and give us the test results before that was done.

Was that a factor in bringing this to the Secretary's attention, the requirement that that report be made?

Mr. SHERICK. I can't say for sure. There were a lot of factors. There were the problems that they were having with the testing, and I'm sure that that certification had something to do with it, but we can certainly check for the record.

[Subsequently, the following was provided by Mr. Sherick:]

> I am aware the Under Secretary of Defense for Research and Engineering, in a March 1984 memorandum to the Assistant Secretary of the Army for Research, Development and Acquisition, requested that the Army not exercise Option III until solid test results are available. This was followed in June by the Secretary of Defense direction to perform as much operational type testing with soldier operators as could be done prior to signing Option III. I know that the Secretary is genuinely concerned about doing the right thing and making sure that hard test data support the next major commitment to DIVAD production.

Senator BINGAMAN. Let me ask the more generic question of what is going on there in the Defense Department with regard to some of these procurement issues. I was concerned yesterday that there was an article in the New York Times that referred to a briefing you gave 2 days ago indicating the various steps that had been taken to deal with waste and fraud in the Defense Department. Obviously, I commend you for the action you have taken in that regard.

But the part of the article that concerned me was the statement, "Pentagon officials said the briefing was the first in a scheduled series between now and the Presidential election. It is intended to show that the Pentagon is vigorously attacking corruption."

What more could you tell me about this scheduled series of briefings between now and the election?

Mr. SHERICK. I was told the series runs beyond the election. I don't remember what the plan was, but the President, and especially the President's Council on Integrity and Efficiency, have put a great deal of emphasis on management improvement and what the departments of Government are doing about management improvement.

The Defense Council on Integrity and Management Improvement had requested that we go to the services, to the procurement people, to everyone involved with a status report on what we have accomplished. My opportunity was to tell them what I have done in the 3 years that I have been there—2 years as inspector general. I took it.

Senator BINGAMAN. As you understand it, why are we giving this status report in the next 5 weeks? What is the involvement of the Defense Department in the Presidential election campaign?

Mr. SHERICK. I'm not a political appointee. I can't answer that. [Laughter.]

Senator BINGAMAN. Perhaps you could answer another question: Is there a list of this series of briefings, in particular, when they will occur and what the new information is?

Mr. SHERICK. I think there is a list. I think they have told the press what they are going to give them. I know I was told that I could give my briefing September 26. I think I was No. 1. It was an honor. [Laughter.]

Senator BINGAMAN. I was wondering if this committee or those of us in Congress could get information about these briefings, too. It would be interesting.

Mr. SHERICK. Yes, I'm sure you could. Our public affairs people, I'm sure, could make it available. They have already made it available to the press.

Senator BINGAMAN. If the press has it, the Congress can't be far behind. [Laughter.]

Maybe you could get the word back to them that we would like it.

Mr. SHERICK. Yes, we certainly will, and as I said, I don't think there will be any problems.

[The information follows:]

The original Public Affairs Plan, schedule of weekly briefings, or releases, on the Department of Defense management program which was prepared by the Office of the Assistant Secretary of Defense for Public Affairs (OASD(PA)) is attached. Also attached is the OASD(PA) revised schedule for these briefings.

TAB B
PUBLIC AFFAIRS PLAN
SCHEDULE OF WEEKLY BRIEFINGS
OR RELEASES

Scheduled Activities:

Date	Event
19 SEP	Release "Bluetopper" on National Quality Month (October), stressing DoD efforts to maintain quality in procurement process, Warranty program and prosecutions/debarments for substandard performance.
24 SEP	Re-release of Management Improvements booklet (produced by Comptroller), with fact sheet updating actions since publication this May.
26 SEP	Press briefing by DoD IG on inspections, audits, work with DoD/Justice Task Force, etc. Release fact sheet summarizing accomplishments.
28 SEP	Last weekday of Fiscal Year. Be prepared to account for contract award announcements in terms of whether funds are expiring or not and why large numbers of awards have been made (if this is the case).
3 OCT	Press briefing on changes in contracting procedures. To include increased emphasis on fixed-fee contracts, breakout program, incentives, etc. Release fact sheet summarizing accomplishments.
10 OCT	Press briefing on Defense Contract Audit Agency activities. Release fact sheet summarizing accomplishments and 4th Quarter Audit results, if available.
17 OCT	Press briefing on Joint Interservice Resource Study Group and Defense Retail Interservice Support programs. Release fact sheet summarizing accomplishments.
24 OCT	Press briefing on Warranty program, including DoD's rationale for modifications in legislation which would allow greater flexibility in the program. Issue fact sheet summarizing activities and accomplishments of warranty program.
31 OCT	Press briefing on Competition Advocate program, including savings acheived and increase in competitively awarded contracts. Issue fact sheet on accomplishments.

PUBLIC AFFAIRS PLAN
PROPOSED SCHEDULE OF WEEKLY BRIEFINGS,
RELEASES AND SPEECHES

Scheduled Activities:

Date	Event
18 SEP	SECDEF speech to American Newspaper Publisher's Association. Suggested theme: Responsibility of media to report both sides of procurement issues, including what DoD has done to improve.
26 SEP	Press briefing by DoD IG on inspections, audits, work with DoD/Justice Task Force, etc. Release fact sheet summarizing accomplishments. Release Bluetopper on indictments, convictions and sentences.
29 SEP	DEPSECDEF speech at VALLEY FORGE (CG 50) commissioning. Suggested sub-theme: Acquistion Improvement and Readiness.
3 OCT	Press briefing by OUSD(R&E) on changes in acquisition management. To include increased emphasis on program stability, breakout program, incentives, etc. Release fact sheet summarizing accomplishments.
10 OCT	Press briefing by ASD(MI&L) on Model Installations Program, Personnel Productivity Increases, and A-76 Circular changes. Release fact sheet summarizing accomplishments.
15 OCT	ASD(MI&L) speech to World Affairs Council of Boston, at Pentagon, DC. Suggested sub-theme: Productivity Improvements.
16 OCT	DEPSECDEF speech to University Club, Chicago, IL. Suggested sub-theme: Management of Defense Resources.
17 OCT	Press briefing on Defense Contract Audit Agency activities. Release fact sheet summarizing accomplishments and 3rd Quarter Audit results.
20 OCT	DEPSECDEF speech to Kelly Management Association, San Antonio, TX. Suggested sub-theme: Responsibility of government managers to the public.
23 OCT	SECDEF speech to National Security Industrial Association, Washington, DC. Suggested sub-theme: Industry's obligation to be responsible

contractors.

23 OCT — DEPSECDEF speech to DoD Depot Maintenance Seminar, Corpus Christi, TX. Suggested sub-theme: Spare parts reforms and reclamation of recoverable assets.

24 OCT — Press briefing by OUSD(R&E) on Competition Advocate program, including savings acheived and increase in competitively awarded contracts. Issue fact sheet on accomplishments.

29 OCT — ASD(MI&L) speech to American Logistics Association, Arlington, VA. Suggested sub-theme: Improvements to the Logistics chain resulting from Resource Management reforms.

1 NOV — DUSD(R&E:Acquisition Mangement) speech to DoD Value Engineering Conference, Crystal City, VA. Suggested sub-theme: Contributions of value engineering to the Acquisition Improvement Program.

7 NOV — Press briefing by DoD IG updating status of "Hotline" program. Track some specific cases from inception to conclusion (prosecution, etc.)

13 NOV — SECDEF speech to International Management & Development Institute, Washington, DC. Suggested sub-theme: Mangement Initiatives in DoD.

13 NOV — ASD(MI&L) speech to International Management & Development Institute, Washington, DC. Suggested sub-theme: Spare Parts procurement improvements.

14 NOV — Press briefing by Comptroller on improvements in contracting and accounting procedures. Release updated (1 October) version of "Management Improvements" pamphlet.

14 NOV — ASD(C) speech to American Society of Military Comptrollers, Arlington, VA. Suggested sub-theme: Economies and Efficiencies.

19 NOV — ASD(PA) speech to Naval War College, Newport, RI. Suggested sub-theme: Acquisition Improvement as a public issue and management responsibility.

28 NOV — Press briefing by ASD(MI&L) on improvements in spare parts acquisition. Specifically address realignments (proposed or actual) in process which have occurred as a result of our in-depth audits and reviews of the spares programs.

5 DEC — Press briefing by DUSD(R&E:Acquisition Mangement) on implementation of the Warranty Law, including DoD's rationale for greater flexibility in the program. Issue fact sheet summarizing activities and accomplishments of warranty program.

17 DEC — ASD(PA&E) speech to National Defense University, Ft. McNair, DC. Suggested sub-theme: Role of Program Analysis in Acquisition Improvement Program.

Senator BINGAMAN. I think that should be interesting. I think I should say that this is a serious problem. We are making light of it, but I think it is a serious problem if we do have a public relations campaign waged by the Department of Defense in the final 5 weeks of the Presidential election campaign to deal with an issue that the President or his political advisers may see as causing him some difficulty in the polls.

I think this is an issue that has been handled on a bipartisan basis here in the Congress, Senator Roth, Senator Rudman, Senator Cohen, Senator Levin, many have worked long and hard at this, and I think it is a mistake for the Defense Department to insert itself into this Presidential election if that is, in fact, what is intended by this reference in the article.

Mr. SHERICK. All I can say is that my office and my involvement certainly started with Secretary Weinberger's decision in 1981 to go ahead and establish the office, and I don't think that I could be nearly as effective as I have been, and I am not necessarily saying that I have ever peaked, without his 100-percent support, so I think he does deserve acknowledgement for that. The administration, I think, in establishing of the President's Council on Integrity and Efficiency certainly has done a great deal in bringing together the inspector general and the whole concept of looking at these activities in the Department.

I can't really comment on the political aspects of it. My big problem is I am trying to get a message out to a lot of people, I am trying to get a message out within the Department of Defense that people are doing dumb things, to contractors that are doing dumb things and stealing from us, and to anybody else that can hurt us in doing the job we are trying to do. So I will take any opportunity that I can get to spread the word that one, the inspector general is there, and two, he is not going to go away.

Senator BINGAMAN. I think that is an excellent message. I'm just not sure that that is the message that I pick up as intended to get through in this series.

Let me just ask one other question. The chairman, Senator Roth, had referred to the administration's supporting the establishment of the inspector general's office. Is that accurate? I had understood the opposite. I had understood that throughout the legislative battle to get an independent inspector general established the Defense Department had resisted that.

Mr. SHERICK. I think that the Defense Department up until Secretary Weinberger had resisted. I think for the 3 years after the Inspector General Act of 1978, there were nonconcurrences all over the place. In 1978, the Inspector General Act didn't establish an inspector general in the Department of Defense. It required for a study of what would be needed, and Secretary Brown established a task force of people from the outside. It was led by George James, a former vice president of Mobil, and it was made up of people from universities, law firms, and companies. They did a 1-year review of the audit, inspection, and investigative functions in the Department. They came up with a three-volume report which was called the Boutté study. Boutté was the staff director. They recommended that there be established in the Department of Defense not an inspector general, but an Under Secretary for Review and Oversight.

That group reported out in May 1980, and nothing happened. I would suspect Secretary Brown felt that there was no point in him doing it until after the election, the next Secretary could decide what he really wanted to do.

Secretary Weinberger, early on, in fact in April 1981, said, "I want that," and established an Office as an Assistant to the Secretary for Review and Oversight.

I'm not saying that there were people in the Department of Defense who were jumping up and down with joy when the Congress established a statutory inspector general out of it. The big weakness was that the assistant's position was an administratively established position and could be wiped out by some other Secretary.

The Senate and the Congress made it a statutory inspector general that can't be wiped out administratively. I think the only argument that really was involved was where should the Defense Contract Audit Agency [DCAA] be? I mean, that was the only argument that I remember at the time, and as I say, there were still plenty of people dragging their feet. They really would have liked to have seen Minnie Mouse in this job, but the day it was authorized, Secretary Weinberger sent my name to the White House to be the inspector general

Senator BINGAMAN. I would say your recollection and my information is somewhat at variance. Because I had thought——

Mr. SHERICK. I'm used to people being negative. [Laughter.]

Senator BINGAMAN. Are you suggesting me being negative?

Mr. SHERICK. No, no, not you; other people in the Department, but it just rolls off me. I just expected they wouldn't like an inspector general.

Senator BINGAMAN. But your understanding is that the Secretary did establish a statutory inspector general?

Mr. SHERICK. He established an office with reasonbly similar authority. You would have to ask him, but I don't think he objected to it when it happened.

Chairman ROTH. Let me intercede here since I was the one involved in the whole matter. I think in fairness to this administration, while there was a lot of reluctance within the Pentagon to support the inspector general concept, we were able to ultimately get their support and help in setting up the inspector general as it now exists.

I would point out, since the political side has been raised, that the notion of having an inspector general in the Defense Department has been fought by past administrations. Now, in fairness to all those who opposed the idea, it should be pointed out that part of the opposition was based upon concern for security and secrecy. But I think like all matters, if you would set your mind to work, you can find ways and means of protecting that and still ensuring that there is relative independence. So we were successful in getting it adopted.

We have got other witnesses, and we have just begun to go down the panel. Senator Rudman.

Senator RUDMAN. Mr. Chairman, thank you.

I am going to be very brief, Mr. Sherick. I just want to bring the focus of the hearing back to what I am mainly concerned with. I

want to come back to the basic question of the information that was furnished to DSARC based on testing.

Based on your examination of that information that was presented, and based on other information that you now have in your possession, and I assume you have the other information in your possession, maybe not what I have, but you certainly have other information.

Mr. SHERICK. Yes.

Senator RUDMAN. Is it your opinion that material evidence that was important to DSARC was withheld from them at that review?

Mr. SHERICK. I don't know that it existed. I don't know that it was withheld. We didn't find that anyone withheld information. We knew that testing had been done, and what we were told was that, on the operational side, the data had not been reduced for use until November 1982, although the same data for the development testing, which came off the same test, was reduced and was available in May.

Senator RUDMAN. Let's get down to the latest testing. Are you familiar with that?

Mr. SHERICK. I'm not familiar with the details of that, no. I know it has been done at the request of the Secretary of Defense, but I am not familiar with the details. I know GAO has been looking into it.

Senator RUDMAN. Is Mr. Connor familiar with the details of that quick test?

Mr. CONNOR. We have been monitoring those tests, both the design verification and the limited test.

Senator RUDMAN. OK. Mr. Chairman, I think I will withhold that. It seems to me that the key questions derive from that testing. Let me just ask Mr. Sherick the tests that you are familiar with, those were essentially conducted with the crews and maintenance, the crews being trained and the maintenance being performed by contractor personnel; is that correct?

Mr. SHERICK. Yes. That is right. As far as I recall, the crews were actually military people who were trained by the contractor, but the maintenance and support were all contractor.

Senator RUDMAN. Mr. Sherick, let me ask you one last question. Did you go back in the history of this and look at the original requirement that was set forth for this Divad system?

Mr. SHERICK. Let me ask Derek.

Mr. VANDER SCHAAF. No, we didn't do that. We were limited to try to stay within the scope of the hotline allegation, and that is what we have done. Some people in our office have obviously picked up some familiarity with that, but I don't think we could testify to it in terms of auditability data.

Mr. SHERICK. There are three GAO reports on that, right?

Senator RUDMAN. GAO has seen the record and what it was designed to do originally?

Mr. SHERICK. Yes.

Senator RUDMAN. So you can discuss, when your turn comes, the changes, if you will, in mission that have been assigned to this weapon since its initial inception?

Mr. CONNORS. Yes, sir.

Chairman ROTH. Fine.

Senator RUDMAN. Fine. Mr. Sherick, thank you. It was a very candid testimony. We are going to talk to Mr. Connor a bit about the tests.

Mr. SHERICK. I would feel much more comfortable if we had some DSARC members here with me.

Senator RUDMAN. I expect, Mr. Sherick, that some time later this year, early next year, that that group and a lot of other folks are going to have a chance to sit where you are sitting and talk about this matter.

Chairman ROTH. Mr. Levin.

Senator LEVIN. Was the Secretary of Defense invited here this morning? Do you know?

Chairman ROTH. Dr. LeLauer was invited.

Senator LEVIN. Do we have a refusal from Dr. DeLauer to be here today?

VOICE. Excuse me. I am representing Dr. DeLauer. He is tied up in the preparation for meetings this afternoon with the Secretary.

Chairman ROTH. Let the record show that we did invite a representative from the Department of Defense to be here. They chose not to send anyone to appear today. They are in the process of making a decision on the Divad. But we do as Senator Rudman has already indicated, to bring others here later.

Senator LEVIN. Thank you.

Mr. Sherick, as I understand your findings here, there were misleading charts that were submitted to DSARC. Is that the upshot?

Mr. SHERICK. Yes.

Senator LEVIN. They were misleading because they omitted certain information, were oversimplified and were selective, is that fair?

Mr. SHERICK. Yes.

Senator LEVIN. Is there anything that was misrepresented expressly in that material presented to DSARC?

Mr. SHERICK. I don't think so. I think the people at the DSARC knew how the charts were created. They took the weapon system as it operated in one test, and another test, and a third test, and they put it all together to look like it was a system operating against the target in one continuous episode.

So they simulated an operational test. That is what the chart said.

Senator LEVIN. My question was, was there any representation made to DSARC which was expressly false?

Mr. SHERICK. No.

Senator LEVIN. These were omissions, oversimplifications, understatements?

Mr. SHERICK. As far as we could determine, the people that were there knew what they were being presented, that it was development test data, and it wasn't operational data.

Senator LEVIN. So that the flaws, as you describe it, because after all, you have used the word here, "misleading," the misleading nature of this material was known to DSARC?

Mr. SHERICK. It was not known.

Senator LEVIN. Let me rephrase it. Did the DSARC know of the inadequacy of this information that was being presented to it?

Mr. VANDER SCHAAF. Senator, let me try to respond. I think the Army officials reported to our investigators that they said that the individuals, including the staff members of the principal members of the DSARC, knew what was behind the numbers they presented, but we couldn't find any evidence that the DSARC principals, in particular, knew all of the factors that were behind these numbers.

That is the data, and there doesn't seem to be that missing link. We have been looking for it, but we can't find it. What was in the back of somebody's mind, I can't tell. But in our opinion, those charts were somewhat misleading on reaction time and kill probability.

Senator LEVIN. Let me just keep asking questions. I don't understand your answers. Did the folks at DSARC know that this information was inadequate?

Do you believe they knew it was inadequate?

Mr. SHERICK. I think they knew, that it wasn't operational test data.

Senator LEVIN. They knew that?

Mr. VANDER SCHAFF. Yes.

Senator LEVIN. Should they have insisted on operational test data?

Mr. SHERICK. Yes, absolutely.

Senator LEVIN. And they didn't.

Mr. SHERICK. It was a production decision. They didn't.

Senator LEVIN. Who was responsible for not insisting on what they should have insisted on?

Mr. SHERICK. The DSARC. That is what they are there for.

Senator LEVIN. Who? Who was there?

Mr. SHERICK. The members of the DSARC, the Under Secretary for Research and Engineering, the Director for Program Analysis and Evaluation, ORPA&E, the people that are decisionmakers in the Department of Defense.

Senator LEVIN. What is PA&E?

Mr. SHERICK. Program analysis and evaluation, the systems and analysis.

Senator LEVIN. Have you asked them why it is that they decided to proceed when they knew?

Mr. SHERICK. They thought they knew enough about the system. The system consisted of proven components, and they thought they could go ahead.

Senator LEVIN. But in going ahead, they violated a process?

Mr. SHERICK. Yes. They violated their own regulation, which says you should have operational test data, fly before buy.

Senator LEVIN. Did you ask these officials why they proceeded when they knew that the operational test data was missing?

Mr. SHERICK. Yes.

Senator LEVIN. Who did you ask, particularly?

Mr. SHERICK. The response we got back was from Dr. DeLauer. I don't know who else we talked to in the DSARC. But we went to the members of the DSARC. Of course, the DSARC is chaired by the Under Secretary. There is a group of people who run it. They are the ones that we gave our report to and asked them.

Senator LEVIN. Who precisely did you ask why they decided to go ahead when they knew that the operational test data was missing? What person or persons by name?

Mr. SHERICK. Dr. DeLauer answered our report.

Senator LEVIN. And the answer he gave was that?

Mr. SHERICK. I think the chairman read his final statement, that he thought that there was enough data to go ahead with it.

Senator LEVIN. You have said they violated their own processes by not requiring the operational data. Did he agree that their process was bypassed?

Mr. SHERICK. Yes. He agrees that we are right; that we should discipline the system and not go ahead without operational data.

Senator LEVIN. We are not talking about the system; we are talking about the people who disobey the system, isn't that it?

Mr. SHERICK. That is what my report pretty much says.

Senator LEVIN. It sounds to me like we have a people problem there. I mean, if you have a system that says you are supposed to have operational data before you proceed, and you have somebody who decides to proceed without it, I mean, unless you put capital punishment into the system or something like that, I mean——

Senator RUDMAN. Are you suggesting it? [Laughter.]

Senator LEVIN. No. I generally do not favor it. [Laughter.]

Mr. SHERICK. I have watched the DSARC system from the time it started. In fact, I attended the first 77 of them. The key to the DSARC process is just this: discipline. Everybody knows what you need to be able to make a decision, and everybody knows what you should have as a prerrequisite to making that decision. It is all laid out in the DOD directives and regulations. Yet you find consistently and continuously, in almost every administration, that you have people who are very much success-oriented. The thing you have driving them is, "The Russians are coming." You have that problem of meeting initial operational capability dates, and you have the other problem that they think that we can solve any technical problem, and consequently, what they do is agree to ignore their own rules. This has been happening over the years from the very beginning.

Senator LEVIN. Do the regulations have any provisions for handling or dealing with people who violate the process?

Mr. SHERICK. No.

Senator LEVIN. Should they?

Mr. SHERICK. I don't know that DOD requires a provison like that. I think that is a matter of discipline within the Department for the Secretary.

Senator LEVIN. But you are clear that Dr. DeLauer acknowledges that they violated their own processes here?

Mr. SHERICK. I don't know if I am clear or not. It seems that we laid it out, and he came back and said, "I went ahead because I thought that I had everything I needed."

Senator LEVIN. But does he acknowledge that that was a violation of their process?

Mr. VANDER SCHAAF. No. He believes, and I think he is right, as a chief acquisition authority for the Department of Defense, he can work within those guidelines and processes. I think he sees those specific detailed regulations or directives or procedures that are

laid out as being guidelines to him in doing his job. He has a tough job to do. He has to make a lot of decisions whether or not we could go forward with production. There was money ready to be spent on this. There were people's jobs at stake. All of these factors have to play into the decision, and on the basis of his decision, he recommended to Deputy Secretary of Defense Carlucci to go ahead.

Senator LEVIN. My question is, it is not uncommon for them to proceed to production in the absence of this operational testing; is that it?

Mr. VANDER SCHAAF. That is not uncommon. They don't always have as much operational testing data as they would like. They generally have some. In this particular case, we had none.

Senator LEVIN. Let me just end with one comment. I see the yellow light is on. It has to do with the inspector general's office. My recollection is quite different, and the record can establish whether or not the administration supported the independence of your office the way it ended up.

My recollection is quite different. We got a battle from both this and prior administrations on the level of independence of the inspector general's office.

Mr. SHERICK. I know there was argument about the access to classified material.

Senator LEVIN. No, the level of independence. The chairman is the expert on that.

Chairman ROTH. There were very serious negotiations, and I suppose you can view it from whatever direction you want. The fact is that ultimately, we did get their support when we were——

Senator LEVIN. I think you had to be on the Senate floor, if I remember, but we will go back and check the record.

Mr. SHERICK. I think that was on the DCAA.

Chairman ROTH. There was a serious question as to the number of auditors, that is correct. I wanted more to be put in the inspector general's office and others wanted less.

Senator LEVIN. Thank you, Mr. Chairman.

Chairman ROTH. Senator Cohen.

Senator COHEN. Thank you, Mr. Chairman.

I'm sorry I missed your testimony this morning, Mr. Sherick, it took me 1 hour and 15 minutes to travel 11 miles in the rain this morning.

I would like to talk a little bit about this weapon, per se. There is an expression that a camel is a horse built by a committee. There is almost a standing joke in the Pentagon that I have been told that they finally found a way to make a gun more expensive than a missile. What you are talking about is a $5.7 million radar cannon to shoot down helicopters that don't move very fast. Is that what we have got here?

Mr. SHERICK. Basically, that is what the threat is, pop-up helicopters, and what we have is a $5.7 million cannon to shoot down pop-up helicopters to protect tanks. The $5.7 million is the average program unit cost.

Senator COHEN. Even though our experience in Vietnam was quite to the contrary, I think we lost something like 4,600 helicopers.

Mr. SHERICK. I don't believe Vietnam had that many helicopters.

Senator COHEN. Wait. Let me finish. We lost 4,643 helicopters, not to SAM's, not to radar guided cannons, but to rifles carried on the backs of the Vietnamese.

Now we are building a $5.7 million cannon to do something you can do with a $600 rifle? Does that make sense?

Mr. SHERICK. I am not here to defend the Department of Defense weapon systems. From my point of view, looking at the threat, which I have looked at, that we face in the NATO, there is no question that we have to have some weapon that can move with our armor and can go after pop-up Soviet helicopters that fire missiles or guns at armor. Whether we need a $5.7 million one or not, I don't know. But we certainly need something that can move with the tanks and the armored personnel carriers and give them some air defense.

Senator COHEN. OK. So we need a weapon for air defense.

Mr. SHERICK. I think we need a weapon system very much.

Senator COHEN. Your conclusion, at least to this date, is we have inadequate testing to determine whether or not this is the weapon system to deal with that kind of a threat. Second, we have had inadequate or potentially misleading information conveyed to decisionmakers in order to make that decision. And third, we have had apparently inadequate notification to Congress.

We are, what, something like $1 billion in the hole already, and we are finally deciding that maybe we ought not go forward? That would indicate inadequate notification to those of us who are charged with oversight.

Mr. SHERICK. I didn't look at the testimony before your committee or before your Appropriations Committee. So I don't know necessarily what the Department of the Army has been telling or, for that matter, the Under Secretary, has been telling Congress concerning the status of the system.

Senator COHEN. Well, if they have been getting inadequate information, then certainly they must be conveying inadequate information. That would follow, wouldn't it?

Mr. SHERICK. Yes.

Senator COHEN. I have one final question on procurement reforms. This committee has sat here for at least the last 6 years talking about procurement reform. Mr. Carlucci, who did a fine job while he was Secretary of Defense, proposed a legislative improvement program—the so-called Carlucci initiatives. One of those initiatives was to decentralize the procurement system so that we would have more accountability at the lower level.

Of course, that raises the specter of having less knowledge and perhaps less responsibility at the higher levels.

What do you think of that particular move of decentralizing the procurement process to have fewer reviews by the Secretary of Defense or his Deputy than before?

Mr. SHERICK. I don't really have any big problem with that concept. I think that we reviewed the set-up of our weapon systems before the Carlucci initiative. I think the whole concept was one of the OSD staff, being deeply involved in the review of what was happening as opposed to being deeply involved in the day-to-day operation of acquisition programs.

Let the service do their thing, but keep watching them, and use the discipline you have for the system to get the reviews up there, so you know that they are doing the testing; you know that they are going through the different debates before they move into the next phase of either development or production, and you know, at least in this instance, that was the failure; we just didn't demand what we should have had before the decisions were made.

Senator COHEN. In other words, what you are saying is that the system is all right the way it is, provided you enforce the system?

Mr. SHERICK. Absolutely. I think that there is no question about that. You have the people at our level who know what is being reported to them so that they know how to ask the right questions. It is just not a question of somebody coming up and saying, "Hey, see what we have done." Somebody has to be capable of evaluating that, and I think that is what you are saying with the Director of Operational Test; you are saying you need a guy that is competent; that is independent, and he is going to look at what they provide, and he is going to give the officials of the Department, the top of the Department, his good independent advice on whether it should go ahead or not on the basis of that testing.

Senator COHEN. Where does the oversight of that process—by your Department, come in, for example?

Mr. SHERICK. What I am doing, for instance, is looking at the process to make sure that the data is provided, and it is reviewed by the people. We can comment on the quality of the review, and we do. But that is basically the thing that I can do.

Senator COHEN. In this case, the data was not examined or perhaps inadequately examined?

Mr. SHERICK. When GAO testifies, they will tell you what they looked at the test data; they looked at the acquisition strategy, and they wrote reports on it.

Senator COHEN. At what time, what point in time?

Mr. CONNOR. We have issued three reports on the Divad. The earliest one was, I think, 1980; the latest one was 1983.

Senator COHEN. Were they all consistent?

Mr. CONNOR. Pretty much. They all cautioned the Secretary of Defense. In fact, the last one recommended that he not exercise option two until he had better test data.

Senator COHEN. Thank you very much, Mr. Chairman.

Chairman ROTH. Thank you, Senator Cohen.

[Mr. Sherick's prepared statement follows:]

STATEMENT BY

JOSEPH H. SHERICK

INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

Mr. Chairman:

I am pleased to respond to your request for my views regarding our recent work on the DSARC decision process, as it involved the Army Division Air Defense (DIVAD) Gun System. Since the Committee has the full classified report of our review of the DIVAD DSARC process, I will not go deeply into the details but highlight our findings, conclusions and recommendations on the matter.

Mr. Chairman, as you know, we have a Hotline system in the Department of Defense in which we encourage employees to report allegations of fraud, waste and abuse to the Hotline. We agree to investigate these allegations, protect the anonymity of the complainant and make the results of our work known to the appropriate authorities. Our work on the DIVAD production decision DSARC (DSARC III) was initiated in response to such a complaint. The gist of the complaint was that test data presented by the Army at the DSARC III meeting of May 4, 1982, were known to be faulty. Specifically, it was alleged that system engagement kill probability was overstated and system reaction time was understated. I should also acknowledge, Mr. Chairman, your letter of May 4, 1984, which we received while our work was progressing and which raised essentially the same issues. Your letter requested a copy of our findings and recommendations when our work was completed, and these were provided to you by our letter of September 14, 1984.

The DIVAD program was authorized to use, for its procurement, an accelerated unconventional acquisition strategy which was approved at a 1977 DSARC meeting when initiation of the program was approved. That strategy called for the maximum use of existing proven components, minimum Government intervention and maximum contractor flexibility in making the engineering judgements to achieve the desired performance and the earliest possible operational capability. It was, we believe, an imaginative and ingenius approach to the development and acquisition of weapon systems and, if successful, would significantly shorten the time required to develop and field this major weapon system.

This accelerated acquisition strategy included the use of proven, reliable major components (M48A5 tank chassis and M-60 tank power train) and the incorporation of proven hardware (40mm gun) and mature hardware derivatives (F-16 radar system). Additionally, the Army adopted a "Skunk Works" approach that allows the contractor to use in-house initiatives and resources during engineering development to further refine the technical characteristics of the weapon system. Throughout development and early production, the Army applied a "Hands-Off" policy in which the Army stood aside and the contractor had full responsibility for system design and production to meet established system specifications and performance requirements. Government direction was minimized until delivery of the 51st

DIVAD gun system. A consequence of this strategy was that it afforded minimal test information to the Government.

As a result of deficiencies noted in the limited contractor and Government testing conducted prior to DSARC II, a follow-on "Check Test" was planned to confirm contractor generated "fixes" prior to entering the DSARC III production decision process. This "Check Test" was conducted in late 1981. When the DSARC reviewed the DIVAD program in the spring of 1982, the available test results were from the earlier, rather restricted period when there were competing contractors and from the preliminary results of the "Check Test." The allegation about a faulty presentation of DIVAD performance centers on how well (or how poorly) the Army used detailed test results, with particular emphasis on "Check Test" results, to construct a summary level statement of system performance for the DSARC principals.

For the Committee to understand our views on this central question, it is necessary for me to first describe the DSARC process. Existing regulations require the proponent Service to submit a draft Decision Coordinating Paper, a draft Test and Evaluation Master Plan and other documentation three months prior to a given DSARC meeting. These documents then serve as the basis for review, comment and development of issues by the staff of the Office of the Secretary of Defense. The proponent Service is also required to brief the Office of the Secretary of Defense Cost Analysis Improvement Group on cost, the Directors

for Defense Test and Evaluation and for Operational Test and Evaluation on test plans and results, the Defense Intelligence Agency on the threat, and the staff of the Assistant Secretary of Defense (Manpower, Installations and Logistics) on logistical considerations. If these briefings surface issues, they are discussed at the Office of the Secretary of Defense prebrief which occurs approximately two weeks before the DSARC meeting.

We have no problem with the DSARC process just described and required by existing regulations. It is intended to be a quality assurance check on the input data used to make important decisions on major Defense acquisition programs. It is intended to generate the right issues to be debated before those decisions are made and to provide the decision makers with a good, factual understanding to use in their evaluation of those issues.

Returning now to our special review of DIVAD, the question there concerns the adequacy or quality of the documentation made available to the DSARC principals upon which to base major program decisions. In the case of DIVAD, the Decision Coordinating Paper and Test and Evaluation Master Plan were submitted as required. The directed briefings were conducted. The right issues were generated. Our concern is whether the whole process for the DIVAD DSARC resulted in a good understanding of the demonstrated and reasonably predicted

performance of the system is a realistic operational environment.

There were two elements of the "Check Test"--a Development Test portion and an Operational Test portion. The Army presentations during the DSARC III process relied on data derived from the Development Test portion. Data from the Operational Test portion, as well as data from the Electronic Countermeasure testing in the Check Test, were not made available to the Office of the Secretary of Defense staff for review prior to the DSARC. The complete Operational Test results were not released by the Army Operational Test and Evaluation Agency until November 1982, several months after the DSARC III decision in May 1982.

The major item of contention at the DSARC III meeting was limited to DIVAD effectiveness at the longer stand-off ranges of the evolving threat. Also, some participants were concerned that DIVAD would not be able to react as fast to the threat as the threat could react to DIVAD. The Army, in rebuttal, showed the DSARC principals certain charts which depicted a high level of effectiveness at long-range and a rapid reaction time compared to the threat. These charts were oversimplified and, therefore, misleading and based on a selective analysis of the results of

the Development Test portion of the Check Test. They also used several overly optimistic performance assumptions.

Statements by Army personnel during the course of our Hotline review suggested that, even though summary level charts were oversimplified, all participants were aware of these factors from the numerous informal meetings held prior to the DSARC. It is because these statements cannot be disproved that we must conclude that there was no deliberate misstatements by the Army.

It is also for this reason that we fault the DSARC process for DIVAD. Even though the documentation requirements were complied with, we find no evidence that there was a consensus opinion by the Office of the Secretary of Defense decision makers on any objective measures of expected DIVAD performance in a battlefield setting. The need for operational test results is generally recognized as basic to all DSARC III milestones and was specifically recognized as required for the DIVAD DSARC III milestone.

Based on these findings, we have made specific recommendations to improve the DSARC process. While disputing whether the identified deficiencies were present in the DIVAD DSARC, the Defense Acquisition Executive, Dr. DeLauer, agrees with our recommendations. We have also recommended that appropriate Office of the Secretary of Defense decision making

officials take a fresh look at the program before making commitments to further DIVAD production. This recommendation is appropriate because:

1. We were looking at actions in late 1981 and early 1982;

2. Additional test information and threat projections are now available.

The Secretary of Defense has decided to conduct such an additional review of the program and is now doing so.

Mr. Chairman, in your letter inviting me to this hearing, you raised three specific questions which I would like to address. Your first question was: "Why did officials decide to go ahead with the production decision on the DIVAD even though they knew that important operational test data was missing?"

My response to the question is that I am not sure. The question would be better addressed to the members of the DSARC. I would speculate that the reasons had to do with the following:

1. A fairly high confidence level that whatever problems were encountered in development testing, plus those to be encountered in operational testing, could be overcome;

2. A decision to achieve the earliest possible operational capability;

3. A belief that the use of "proven components" and an accelerated acquisition strategy would produce an acceptable level of system performance.

Your second question was: "What does this particular incident tell us about the overall acquisition process? Is the decentralized procurement process affecting the ability of the Secretary of Defense and other top officials to make informed decisions? Did the Army's decision to use a 'hands off,' heavily concurrent and accelerated acquisition strategy for the DIVAD contribute to the problems the program has encountered?"

My response is that the policy of "controlled decentralization" has two obvious aspects to it. The first is "control," the second is "decentralization." Both terms really involve questions of degree. I personally believe that the policy can work if the degree of control and the degree of decentralization are kept in balance. The DSARC's are one opportunity for the highest level of Department of Defense officials to exert control and discipline. My recommendations on the DSARC process are designed to ensure that such future opportunities are well exercised.

Similarly, an "accelerated acquisition" strategy does not necessarily mean total "hands off" by the Government. To the extent it means "hands off" of every detailed decision that is best handled at a grass roots level, I support it. However, this strategy should not have any application to periodic, top-level reviews such as DSARC's.

Your third question was: "What is the current state of operational testing in the Defense Department? Is operational testing, in the Army and throughout the Department, given the serious attention it deserves?"

I believe the state of operational testing in the Department of Defense is better today than it was 15 months ago when my Deputy testified. As a result of congressional authorization, an Office of the Director of Operational Test and Evaluation has been established and, although not yet fully staffed, appears to be fully operational. We hope to see the Director position filled very soon. We feel that the establishment of the Director of Operational Test and Evaluation will have positive impact on the availability of adequate operational test information at future DSARC's decisions.

Mr. Chairman, thank you for the opportunity to offer our views. I would be pleased to answer any questions.

Chairman ROTH. Time is moving on. I think we will now move to Mr. Connor. I would ask, if you could, to summarize your statement so that we could proceed with a line of questioning.

TESTIMONY OF HENRY W. CONNOR, SENIOR ASSOCIATE DIRECTOR, ARMY GROUP, NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY GERALD T. MacGUIRE, AUDIT MANAGER, GAO, AND NORMAN KRIEGER, PROGRAM EVALUATOR, NEW YORK REGIONAL OFFICE, GAO

Mr. CONNOR. I will try, sir.

First let me say I am pleased to be here today to discuss our views on the Army's acquisition of the division air defense gun, also known as the Sergeant York and certain aspects of the Department of Defense's acquisition decisionmaking process.

Specifically, I will discuss our observations on the recently completed design verification testing and the Secretary of defense directed limited operational test. I will also discuss our concerns with the acquisition strategy employed in the Divad Program, and finally, I will address the adequacy of test information made available to the Secretary of Defense and the Congress.

During our current effort, we have been reviewing system testing which has been conducted on production fire units. The testing includes a design verification test and a limited test. It should be noted that some of this information is based upon preliminary assessments since in some cases, final reports have not been prepared. The design verification test was begun in March 1984, and is not yet complete.

It was interrupted for about 1 month to accommodate limited testing.

The design verification test, which was not in the original test program, was a combined Government contractor test on production fire unit No. 1. The contractor testing seeks to prove out the systems meeting 26 contract performance specifications.

The Government portion of DVT seeks to assess systems performance characteristics such as identification friend or foe, antiradiation missile defense capability and performance in an electronic countermeasures environment.

The Government testing has been conducted by the Army's Test and Evaluation Command and is to be evaluated by the Army's Materiel Systems Analysis Activity. The Operational Test and Evaluation Agency's roles include reviewing TECOM and contractor test plans and monitoring and assessing the Government portion of the test.

Briefly, the contractor's assessment of their testing indicates the following results in meeting the 26 contract performance specifications: The weapon met 18 specifications and did not meet or only partially met 3, and the analysis of 5 specifications are not yet completed.

The open areas not yet met include target classification with search radar, system reaction time, and hit probability against nonmaneuvering aircraft. A complete evaluation of the contractor's assessment has not yet been completed by the project office.

In the Government's portion of DVT, 10 performance characteristics were assessed with the following results: Five passed, one failed, one is being reevaluated, and three we had no information on.

The Army Materiel Systems Analysis Activity has not fully evaluated the test results. Their overall impression expressed to us is that they were generally pleased with the results and that they were better than or equal to the prototype performance. Two problem areas involved probability of hit and antiradiation missile performance in an ECM environment.

Two design problems noted were track radar locking and loss of search radar under certain conditions.

We have no information yet on OTEA's assessment of that test.

A limited test was conducted at Fort Bliss, TX, using three production fire units. This test was not in the original test plan, but was performed at the Secretary of Defense's direction. Its objective was to test the Sergeant York in as close an operational test environment as possible. It was driven by concern within some elements of the Office of the Secretary of Defense about the lack of demonstrated operational capability of the Sergeant York production fire units.

There was some initial Army concern about characterizing this test as an operational test because some operational testing elements were missing, such as trained troops, doctrine and tactics, and support equipment and spares.

The limited test was characterized as a quick short look at the system's operational suitability to engage aircraft and ground targets, mobility in accompanying ground forces it should protect and inter/intrasystem communication.

The test was conducted during a 5-day period preceded by crew training, a pilot test, and maintenance. The contractor provided test, support such as maintenance, repairs, and data production.

OTEA was responsible for planning, conducting, and assessing the test. Some of the areas addressed included the search, track, and multiple target performance, performance, against ECM, kill performance ground target firing and identification friend or foe.

Some of the positive observations included the crew functioned well; especially considering their limited training; the IFF appeared to function well; there was successful hitting of moving targets and successful firing in a benign environment. It also demonstrated the ability to search, detect, track, and engage multiple air targets in both benign and ECM environments.

Some of the shortcomings observed was the system's inability to keep up with M60 tanks, the performance in the ECM environment at longer distances and reliability and maintainability.

Let me quickly talk about our views on the acquisition strategy of the Divad. In our past reports on this system, we have commented on the Army's unique acquisition strategy. Our early concern involved the limited amount of testing which would be addressed before the award of the production contract.

This included the fact that some important development testing, including durability tests, would not be addressed until after the production contract was to be awarded.

Also, we were concerned over the extent to which the Army's development, test, and logistics agencies would be able to assess test results before the production decision.

We also reported on program risks inherent in the "skunk works, hands-off" strategy to be employed. This was a strategy under which the two competing development contractors would be given latitude in designing a system to meet the Army's requirements with a very minimal Government management and surveillance over those contractors during the initial 29-month development period.

In our last review, we reported that until the acquisition strategy had run its course, an assessment of its success or failure would be premature.

In our current review, which is still ongoing, we are concentrating on system maturity and testing and production deliveries. We, have, however, observed extensive management and day-to-day involvement by the Army in all aspects of the program. The system contractor's responsibilities, in terms of program decisions, are primarily controlled by the Army's formal phase II multiyear development-production contract and directions given by the Army's project office.

The project office is suoported by the Army's procurement activity and other technical components of the Army's Munitions and Chemical Command.

In addition, support is provided by or responsibilities delegated to other Army organizations. All of these elements are involved in the decisionmaking process.

The program is still based on concurrent development-testing and production. Initial production units have been and are being delivered. As mentioned earlier much testing is currently going on or is planned for the near future. However, due to the late deliveries of the initial gun systems and changes in test plans from the original strategy, including the addition of tests not originally planned, there is less concurrency and more test information available now than would have been under the program as originally conceived.

Finally, I would like to briefly address the adequacy of test information furnished by the Army to the Secretary of Defense and to Congress.

As you know, Mr. Chairman, at your request, we have been looking at the reporting process for operational test results in the Department of Defense. More specifically, we looked at the adequacy of operational test and evaluation data contained in the Congressional data sheets. Our review is about complete, and we are preparing our report to you.

With respect to the Army, we have found that the data sheets we reviewed omitted certain information on testing limitations and safety related deficiencies that should have been included.

For example, to demonstrate the durability and reliability characteristics of the Sergeant York, a test was planned to fire 15,000 rounds of ammunition and to travel 4,000 miles.

Because of time limits, only about 3,600 rounds were fired and due to frequent subsystem failures, the weapon traveled less than 300 miles. Rather than indicating that the testing was the mini-

mum required to address specific critical issues, the data sheet noted only that the number of events conducted were less than planned.

Contributing to the inadequacy of the reporting of test results in the Army, we believe, is a condition that we reported on last February. We found that several Army groups were performing test and evaluation on weapon systems and the results were being reported piecemeal with no one responsible for interpreting the overall cumulative effect of the test results.

In response to our report, the Army has started a pilot program in which its Operational Test and Evaluation Agency will consolidate the various test results and provide an overall evaluation. This should improve the quality of test and evaluation information being reported to acquisition officials.

Mr. Chairman, that concludes my testimony.

Chairman ROTH. Thank you, Mr. Connor. If I understand your last statement, what you are saying is that not only has inadequate information gone to those that are making the policy decision, but inadequate information has been supplied to Congress.

Mr. CONNOR. Yes, sir.

Chairman ROTH. Is that correct?

Mr. CONNOR. Yes, sir.

Chairman ROTH. I think that is a most serious and important charge, because there is no way anybody can make an intelligent decision unless they are getting adequate and accurate information.

I have looked over your reports. I notice that on your report of 1983, which is over a year ago, you recommended against exercising the second option.

Mr. CONNOR. Yes, sir.

Chairman ROTH. Part of my question is, why did they proceed with that? But more importantly, we are now considering exercising the third option, is that correct?

Mr. CONNOR. Yes, sir.

Chairman ROTH. What would your recommendation at this time be? I understand that, or at least we received a report, that the Army's Office for Operational Testing and Evaluation is willing to recommend that this third option be exercised.

Would you make that recommendation? Do you think that we have a mature system? Where are we on the operational testing of this system?

Mr. CONNOR. My recommendation to Secretary Weinberger would be that he and Dr. DeLauer review very carefully the just completed design and verification test and the limited operational test.

Chairman ROTH. Are you familiar with those?

Mr. CONNOR. We have just finished observing them, but all we have looked at, sir, is preliminary information, and I have outlined some of the findings from those two tests in my statement.

We haven't sat down with the evaluating agency, which is OTEA, and said, "Now, tell us what all this means, what all these pieces that failed or didn't fail, what does it mean in terms of the gun's performance?"

Chairman ROTH. Let me ask you this question. When were these tests exercised or held?

Mr. CONNOR. The development and verification test is still—is that completed?

Mr. MACGUIRE. It is still ongoing.

Mr. CONNOR. It is just about completed. It has been ongoing for about 6 months, I believe.

Chairman ROTH. It is still continuing.

Mr. CONNOR. Yes. The limited operational test was done during the month of July.

Chairman ROTH. Limited operational testing in July. Is there adequate information now available to make an intelligent decision as to whether or not to exercise the third option?

Mr. CONNOR. It is hard for me to address that. We didn't have it when we were there, but, if I were the Secretary of Defense and I called the Army and the OTEA forward and I had the information Dr. DeLauer has, I think they could look at the test results and make a decision as to whether or not to go forward.

Chairman ROTH. You say you think you could.

Mr. CONNOR. I am not technically qualified, but I would think Dr. DeLauer could.

Senator COHEN. They had the information before, which was inadequate, and they went ahead and made the decision.

Mr. CONNOR. Are you talking about the production decision?

Senator COHEN. Yes.

Mr. CONNOR. We recommended against that, too.

Chairman ROTH. What were the results of the current test? Can you summarize those?

Mr. CONNOR. Page 4 summarizes the design verification test, which was done in two phases. The contractor performed part of it in which he was to assess 26 contract performance specifications. Eighteen were met, three were not met or only partially met, and five, they haven't completely handled yet, but the ones they didn't meet or only partially met, target classification with search radar, system reaction time and hit probability against nonmanuvering aircraft, they are pretty significant aspects of performance.

Chairman ROTH. Let me ask this question. I would like your opinion on this, too, Mr. Sherick. No. 1, is there adequate information at this time to make the decision to exercise a third option?

What is the time requirement? We have already agreed to proceed with two options. You already have 146. So what is the need to go ahead and say we want another—what is it, the third option?

Senator RUDMAN. 117.

Chairman ROTH. 117 more at this time? I thought the whole idea was, what was it the former Deputy Secretary used to call it, fly——

Mr. SHERICK [continuing]. Before buy.

Chairman ROTH. Fly before we buy? Can we say that if we exercise this third option that this will fly before we buy it?

Mr. CONNOR. Could I speak to that first? We cannot. They have not proved that this system will operate in a combat environment. They have not proved that it will be maintainable or reliable. The operational testing has been very limited.

But I also have got to point out, on behalf of the Army and the Department of Defense, that this was a strategy laid out right up front that they were going to have concurrent development and production; they were going to go into production with only limited testing, and I think——

Chairman ROTH. How far do you proceed? I mean, how many have been delivered and accepted? I understand zero.

Mr. CONNOR. Well, they have conditionally accepted 15.

Chairman ROTH. Conditionally accepted 15, and already the orders have been made for 146.

Mr. CONNOR. 146.

Chairman ROTH. So we have to move ahead and exercise a third option?

Mr. CONNOR. We don't have to. Let me mention another consideration that Secretary Weinberger has to evaluate, and that is the third option is part of the original production contract, and it involves fixed unit prices.

So if he doesn't exercise that option and then decides he wants to go ahead with the program anyway, he may pay more for the gun. That is a consideration that he has to make.

Chairman ROTH. I can understand that, but again, can we say it will fly now?

Mr. CONNOR. No, sir, we can't. I don't believe so.

Chairman ROTH. Does it make any sense?

Mr. CONNOR. Well, it is a matter of risk you have to take, I guess, whether or not they can correct the deficiencies.

Chairman ROTH. You see what bothers me about that is we say the tests are not adequate; it doesn't fly now; there are a number of failures. Are we saying that we have got to proceed because we have a fixed price and that may go up, even though we don't know what we are buying.

Mr. CONNOR. I am not saying we have to do that.

Chairman ROTH. I hope my wife uses better purchase practices than that.

Mr. Sherick.

Mr. SHERICK. One of the things I am charged with under the Inspector General Act is to avoid duplication. On this system, GAO has been doing all the auditing, and so I haven't been too deeply involved. Based on what he indicates and what the statement indicates, the operational test data still isn't there. As he said, the problem with these special acquisition packages is you get to the point where you have to make a commitment or the fixed price flys away from you.

It leaves the contractor, then, able to renegotiate a much higher price and recoup all the extra cost, et cetera, et cetera, that he has incurred or is incurring trying to fix these problems.

Senator COHEN. Mr. Chairman, would you yield for a question?

Chairman ROTH. Yes.

Senator COHEN. Are there any warranties involved in this particular one?

Mr. SHERICK. I don't know.

Mr. CONNOR. Yes, there are. There are warranties, and the Army, at least, feels comfortable that they, that Ford, will fix these deficiencies at no cost to them.

Senator RUDMAN. If they can be fixed.

Chairman ROTH. Senator Rudman.

Senator RUDMAN. Thank you very much, Mr. Chairman.

Mr. Connor, I just have a few questions. I was interested in your response to the chairman. You said that you thought that Dr. DeLauer, with his expertise, now has sufficient information to make a decision. Of course, what you did not say, but which I read in your answer, was that the decision, was either to go or not to go.

Mr. CONNOR. Yes, sir.

Senator RUDMAN. Of course, the last question brought out the fact that even though this is a fixed-price contract if the contractor should fail to meet the specs during the time period of the fixed price contract and the Secretary feels he should not exercise the option from a proven point of view of national defense, then it no longer becomes a fixed-price contract When it is purchased after that third option period has expired, at no fault of the Government, the Government is going to end up paying more.

Mr. CONNOR. I would say yes to that.

Senator RUDMAN. So the Secretary can say, "I am not going to exercise these at the fixed price because I am just not satisfied that they work." Warranties are fine, assuming you can solve the problem.

There are some problems that are never solved as we all know. We simply reduce specifications. So the net result of that could be that if the Secretary elects not to go ahead with this option and tells the contractor to improve the product to meet the specifications, they can come back and get a higher price for each of the 117 units, correct?

Mr. CONNOR. It depends on the negotiations. It is not firm that they would get a higher price.

Senator RUDMAN. No; but——

Mr. CONNOR. It is a possibility.

Senator RUDMAN. Well, it is more than a possibility. The Government's right to that at this price expires if the option is not exercised; is that true?

Mr. CONNOR. That is what we have been told, yes.

Senator RUDMAN. I think that is a very important point.

Chairman ROTH. Could I ask one question? As part of this contract, did the contractor guarantee that they could develop and produce this weapon that would meet the specifications? Is that part of the initial guarantee? It is a very important point.

Mr. CONNOR. Yes, sir. That is my understanding.

Chairman ROTH. So that they did undertake that obligation?

Mr. CONNOR. Yes.

Chairman ROTH. That buttresses what you say.

Senator RUDMAN. They guaranteed the performance, Mr. Chairman, but I have looked at many of these documents. The way they are negotiated, they guarantee performance, but separately from that, they guarantee a place within a particular time period; it is not infinity to eternity. If they do not meet that guarantee during that particular period, they have the right to come in and negotiate for a higher price.

That is a serious problem. We are talking about some other things.

I cannot get into classified information, but you have looked at the limited operational test that was carried out during July. I may have more information on that than you have, Mr. Connor.

Mr. CONNOR. You may have.

Senator RUDMAN. Let's find out. We will talk about some things generally. First, let's talk about reliability, which is unclassified. You know you can talk about all of the complex gunnery in the world, but anyone who has operated automatic weapons knows that the most important thing is that they feed continuously.

If they keep jamming, I don't care how much radar and ECM enhancement is in the area. If they jam too often, by the time the crew unjams them, the crew may be in body bags on the way home, to put it bluntly.

Is it not a fact that the reliability in this recent operational limited test in terms of failures between rounds fired was less than it was 3 years ago?

Mr. CONNOR. Senator, If you don't mind, I am going to ask Mr. Norman Krieger to answer that.

Senator RUDMAN. Whoever can best answer the questions I would love to have come up to the table. My question is, is the so-called MRBF and the OT at a value less than attained 3 years ago?

Mr. KRIEGER. Sir, I really can't address what the mean rounds between failures of the automatic system was 3 years ago. We have information dating back from the engineering prototype unit testing that was done in the summer of 1983.

That number showed mean rounds between failure of 1,700 plus.

Senator RUDMAN. I would suggest you take another close look at these tests and compare them to prior results. Let's go to gun aiming accuracy. Without getting into the exact deviation allowed, am I correct in stating that the gun aiming accuracy in terms of the number of mils deviation was substantially less than the specifications called for?

Mr. KRIEGER. We don't have any information on that.

Senator RUDMAN. I thought you observed these tests.

Mr. KRIEGER. Yes, we did, sir.

Senator RUDMAN. That is pretty important information. You don't have that?

Mr. KRIEGER. You can't obtain that type of information as far as distance accuracy from that test.

Senator RUDMAN. You have not seen the results?

Mr. KRIEGER. We spoke to both the operational test people and the developmental test people.

Senator RUDMAN. Let me tell you, you ought to go back and look at that one, too. You will find that is below spec.

Let's talk about engagement range. That is the range at which tha system engages the target. We can't talk about the numbers because they are classified. Is it accurate to say and do you have in your knowledge that the fact of the matter is that in both the benign environment and ECM environment, particularly in the ECM environment, that it did not meet specifications?

Mr. KRIEGER. To our knowledge, that is true, sir.

Senator RUDMAN. That is true. Is it true that reaction time as set forth from the original specification, that is the time that it takes

the system to react to the threat, again, was below as set forth in the specification?

Mr. KRIEGER. To our knowledge, under specific conditions, that is true, it did not meet the reaction time.

Senator RUDMAN. Is it also true that the ECM environment that it operated in was considerably less than what can be anticipated in a real battlefield situation?

Are you aware of that? That has to do with the amount of radar energy that is generated in the area.

Mr. KRIEGER. We are really not in a position right now.

Senator RUDMAN. I hope GAO will go back and look at that. Finally, in talking about engagement results, is it true that in an ECM environment, which is to be expected in a battlefield condition, that the engagement results against hovering helicopters were well below what was called for in the original specifications?

Mr. KRIEGER. We have information that there is concern about the Divad's capability to engage hovering helicopters.

Senator RUDMAN. Are helicopters, in your view and from having observed tests, in a hovering condition? Isn't that what they usually do?

Mr. KRIEGER. They used helicopters in the hovering profile and also in an ingressing profile.

Senator RUDMAN. The fact of the matter is that this system is supposed to operate against hovering helicopters which pop up, hover, and come down. There are some real concerns as to whether or not that works against that; is that true?

Mr. KRIEGER. There are some concerns, yes.

Senator RUDMAN. Finally, let me go to the original specification that was called for in this system. Am I correct that the original specification in 1977 called for this system to operate against fast-moving fixed-wing aircraft?

Mr. KRIEGER. Yes, sir. That was one of the threats.

Senator RUDMAN. Is it not so that the spec has been changed to now make this a weapon that is highly effective against helicopters?

Mr. KRIEGER. I believe, as the threat has evolved, it is our information the helicopter has come to the forefront as the primary threat.

Senator RUDMAN. The fact is it does not move against high rate attack jets coming in at low altitudes; the engagement time is just too long; is that not correct?

Mr. KRIEGER. They have not met the reaction time, the required reaction time.

Senator RUDMAN. Mr. Chairman, I have danced around a lot of classified information. I have obviously given out none of it. I am going to say to you, Mr. Connor, that I think GAO had better get ahold of those data tapes.

We depend on you very heavily. I don't particularly like to deal in purloined information. The fact is I didn't purloin this. This has been given to me by some people in the Defense community who are honest, hard-working, and concerned that we are about to buy a pig in a poke.

That is precisely why the Defense Appropriations Committee took the action it took earlier this week. I hope that when you look

at these results, you are going to look at them very closely and look at them historically. It is very easy to say that you meet a particular specification if you change the specification when you find out that, in fact, you can't meet the specification that was originally set.

Now, it is possible that some of the specifications were set too rigidly. That is freely admitted by all. I submit to you that is not the case here.

Thank you, Mr. Chairman.

Chairman ROTH. Thank you.

Senator Cohen.

Senator COHEN. I would like to let Mr. Connor respond.

Mr. CONNOR. Senator Rudman, I would like to assure you we will take a hard look at the information you provided.

Senator RUDMAN. Thank you.

Senator COHEN. Mr. Connor or Mr. Sherick, I am wondering if you have any concerns about this accelerated procurement process that apparently was used here.

It seems that we have one of these philosophies of build it now and either pay for it later. It is on a fast track using concurrent development and testing.

Is that something that is desirable in this situation?

Mr. CONNOR. That is a hard question for me to answer. There is a desire to shorten the acquisition cycle. Everybody has been concerned about how long it takes us to develop and field a new weapon. I think the Carlucci initiatives were designed to try to shorten that acquisition cycle.

It involves accelerated procurement techniques. However, there is a great risk and we have issued reports in the past; we issued a report on the M1 tank expressing our concern about going ahead with fielding that system without thoroughly testing.

We issued reports in the same vein on the Pershing II missile and the Patriot missile.

There is an awful risk in concurrent development, producing, and testing.

Senator COHEN. Shouldn't it depend on the nature of the weapon system that is being designed and built? In other words, the more high-tech it is, the more sophisticated it is, perhaps the more testing that should be done. After all, you are talking big dollars.

Mr. CONNOR. Yes, sir. I think that may be where the Army got led astray here. As the Chair alluded to before, they saw three separate, the M-48 chassis, the F-16 radar, and the BoFors guns, and they thought it was just a matter of putting these proven systems together. They thought they were buying off-the-shelf hardware.

It turned out they weren't.

Senator COHEN. So you would recommend that when you are dealing with sophisticated weaponry, such as the Divad, you would recommend not taking an accelerated concurrent testing and accelerated development approach.

Mr. CONNOR. I think as you are pushing the state of the art, the slower you have got to go in the acquisition process.

Senator COHEN. Can you tell me why the Army originally canceled the reliability, availability, maintainability, and durability test?

Mr. CONNOR. Yes, sir. Because they felt that the prototypes that were delivered to be tested were inadequate. They wouldn't hold up under test.

Senator COHEN. So the prototypes were inadequate and, as a result, they just did away with the test.

Chairman ROTH. And we buy more.

Senator RUDMAN. Well, it affects price, Mr. Chairman.

Mr. CONNOR. Really, they did away with the big 7-month operational test. They did substitute a much more limited test.

Senator COHEN. Is that proper or sound practice in your judgment?

Mr. CONNOR. We don't think so, and that is why we recommended that they not exercise option 2 without further operational testing.

Senator COHEN. Are you aware of any other systems that are currently following the same sort of fast track approach that are being tested?

Mr. CONNOR. Subject to correction later, I think the multiple launch rocket system has an accelerated acquisition strategy.

Senator COHEN. Are there similar problems with that particular system?

Mr. CONNOR. We haven't looked at that recently.

Senator COHEN. Is that a sophisticated or an unsophisticated system?

Mr. CONNOR. I can't speak to that, sir. It is a trailer with a lot of tubes on it that shoot a bunch of rockets. I am not sure how sophisticated it is.

Senator COHEN. If you don't know, how do we know?

Mr. CONNOR. I can find out.

Senator COHEN. If you would.

Let me go back. I had some information that the original competition was between Ford and General Dynamics, is that correct?

Mr. CONNOR. General Dynamics.

Senator COHEN. Ford apparently did far worse during the initial tests than General Dynamics. Do you have any information to that effect?

Mr. CONNOR. We were not given the information used by the source selection board.

Senator COHEN. Is that information not available to you? Wouldn't that be a relevant factor?

Mr. CONNOR. It wasn't available when we made our original review.

Senator COHEN. Is it now available?

Mr. CONNOR. I don't know. I'm not sure.

Senator COHEN. Is it now available?

Mr. CONNOR. We can find out. We haven't gone back and asked for it.

Senator COHEN. Would that be a relevant consideration in terms of initial comparisons between systems as to which one had performed better, even though neither met up to the specifications?

Mr. CONNOR. It would certainly raise questions on the Army's management of the acquisition program, yes.

Senator COHEN. Don't you think you ought to look at that and advise the Congress as to whether that was true?

Mr. CONNOR. We will.

Senator COHEN. I think last year you did an assessment on the quality of the information submitted by the services to the Congress on the so-called data sheets.

You found that in the case of the Divad, important summary information on the test results was not submitted. Is that correct?

Mr. CONNOR. Yes, sir.

Senator COHEN. What was the nature of that information that was not submitted?

Mr. CONNOR. I mentioned it was concerned with limited testing. As I mentioned in my statement, the original test plan called for firing 15,000 rounds of ammunition, traveling 4,000 miles. Because of time constraints, they reduced the firing of ammunition to 3,600 rounds; because of breakdowns in the system itself, they traveled only 300 miles.

This serious reduction in testing was not made part of the data sheet. The data sheet only mentioned the testing was done to a lesser extent than originally planned.

Senator COHEN. Isn't that misleading information?

Mr. CONNOR. We think so.

Senator COHEN. To the extent it is inadequate, it is almost a calculated——

Mr. CONNOR. Well——

Senator COHEN. It is kind of critical information, isn't it?

Mr. CONNOR. Yes.

Senator COHEN. Wouldn't you say, if you were someone sitting there and found that, by the way, we have got the testing here, and we left out critical information concerning range, engagement, firing rate, that haven't measured up to the specifications? Wouldn't that be kind of critical?

Mr. CONNOR. I think it is critical information. I think it is information Congress should have.

Senator COHEN. If it were deliberate would that be tantamount to a fraudulent omission?

Mr. CONNOR. Fraudulent from the standpoint that, I think, the Congress would have a right to have the Secretary of Defense over here and explain it quite thoroughly.

Senator COHEN. That is all I have, Mr. Chairman.

Chairman ROTH. Gentlemen, let me, in closing, just make two or three observations. One of them is to the person representing Mr. DeLauer. If there is anything crystal clear, it seems to me that it is important that the Pentagon move ahead in good faith and expeditiously with implementing the legislation which requires an independent operational office. I see no reason for that not to have already happened.

I feel it is critically important that be done.

Second, I would like to say both to Mr. Sherick and Mr. Connor, I am concerned that in reviewing and auditing, we never really know who is responsible for the failure to supply full or adequate information.

I think it is about time, as I said earlier, we began holding some people responsible so that we can also make them accountable for what defense pays.

I urge you to look at that, not only with the specific problem, but generally speaking, in your audits of the future, because I want to know who is responsible for making these decisions and why. If we are not getting adequate information from the ground up, then we need to know who is making that decision and why, because it is obvious, it is costing the taxpayer more dollars than would otherwise be spent.

I would urge you to do so. Gentlemen, I appreciate your both being here today. We undoubtedly will be hearing more from you on this, and I appreciate the work you have done.

[Mr. Connor's prepared statement follows:]

STATEMENT OF

HENRY W. CONNOR, SENIOR ASSOCIATE DIRECTOR

NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION

UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

Dear Mr. Chairman:

I am pleased to be here today to discuss our views on the Army's acquisition of the Division Air Defense Gun (DIVAD), also known as the Sergeant York and certain aspects of the Department of Defense's acquisition decision-making process.

Specifically I will discuss our observations on the recently completed Design Verification Testing and the Secretary of Defense directed Limited Operational Test of the DIVAD. I will also discuss our concerns with the acquisition strategy employed in the DIVAD program. Finally, I will address the adequacy of test information made available to the Secretary of Defense and the Congress.

TESTING

In our prior reports we commented on several tests of the Sgt. York air defense gun. These included

--a check test begun in November 1981 which indicated that deficiencies and short comings disclosed during source selection were not overcome as required, and

--a 7 month reliability, availability, maintainability and durability (RAM-D) test which was cancelled because prototype deficiencies rendered it unsuitable for testing by the Army's development testers and evaluators. A similar test with reduced scope was conducted jointly by the project manager and contractor.

In our most recent report[1] we noted that test and evaluation agencies will not have the opportunity to test the systems reliability and maintainability until after initial production units become available. During our current effort we have been reviewing system testing which has been conducted on production fire units. This testing includes a design verification test and a limited test. It should be noted that some of this information is based upon preliminary assessments since in some cases final reports have not yet been prepared.

Design verification test (DVT)

This test was begun in March 1984 and is not yet complete. It was interrupted for about 1 month to accomodate limited testing. The design verification test which was not in the original test program, is a combined government/contractor test on production fire unit #1. The contractor's testing seeks to proveout the systems meeting 26 contract performance specifications. The government portion of DVT seeks to assess systems performance characteristics such as: indentification friend or foe (IFF), anti-radiation missile (ARM) defense capability and performance in an electronic counter measures (ECM) environment. The government testing has been conducted by the Army's Test and Evaluation Command (TECOM) and is to be evaluated by the Army's Materiel Systems Analysis Activity (AMSAA). The Operational Test and Evaluation Agency's (OTEA) roles include: reviewing TECOM and contractor test plans and monitoring and assessing the government portion of DVT.

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[1]The Army Should Confirm Sergeant York Air Defense Gun's Reliability and Maintainability Before Exercising Next Production Option (GAO/MASAD-83-8, Jan. 27, 1983)

The contractor's assessment of their testing indicates the following results in meeting the 26 contract performance specifications:

18	specifications	- met
3	"	- not met or only partially met
5	"	- analysis of test results incomplete
26		

Some of the open areas not yet met include: target classification with search radar, system reaction time, and hit probability against non-maneuvering aircraft. A complete evaluation of the contractor's assessment has not yet been completed by the Sgt. York project office.

In the government portion of DVT 10 performance characteristics were assessed with the following results:

5	passed
1	failed
1	being reevaluated
3	no information
10	

The Army Materiel Systems Analysis Activity has not fully evaluated the DVT results. Their overall impression expressed to us is that they were generally pleased with the results and that they were better than or equal to the prototype performance. Two problem areas that were noted involved probability

of hit and anti-radiation missile performance in an ECM environment. Two design problems noted were track radar locking and loss of search radar under certain conditions.

We have no information yet on OTEA's assessment of DVT.

Limited Test

A limited test was conducted at Ft. Bliss, Texas using three production fire units. This test was not in the original test plan but was performed at the Secretary of Defense's direction. It's objective was to test the Sgt. York in as close an operational test environment as possible. It was driven by concern within some elements of the Office of the Secretary of Defense about the lack of demonstrated operational capability of Sgt. York production fire units. There was some initial Army concern about characterizing this test as an operational test because some operational testing elements were missing, such as: trained troops, doctrine and tactics, and support equipment and spares.

The limited test was characterized as a quick short look at the systems operational suitability to engage aircraft/ground targets, mobility in accompanying ground forces it should protect and inter/intra system communication.

The test was conducted during a 5 day period, and was preceded by crew training, a pilot test and maintenance. The contractor provided test support, such as maintenance, repairs and data reduction. The Operational Test and Evaluation Agency was responsible for planning, conducting, and assessing the test. Some of the areas assessed included: search, track, and multiple target performance, performance against electronic counter measures; kill performance, ground target firing and identification friend or foe. Some of the positive OTEA test observations included:

--the crew functioned well, especially considering their limited training,

--the IFF appeared to function well,

--successful hitting of moving targets,

--successful firing in a benign environment, and

--demonstrated ability to search, detect, track and engage multiple air targets in both benign and ECM environments.

Some of the shortcomings observed were the system's:

--ability to keep up with M60 tanks,
--performance in an ECM environment at longer distances and

--reliability and maintainability.

Future test plans

Upcoming testing for the Sgt. York includes:

--Initial production testing (IPT) - a 6 month test involving five fire units. It will be conducted by the Army with contractor support. Its purpose is to determine if production fire units conform to system specifications.

--Project Manager Maturity Test - to be conducted concurrently with IPT under the project manager's control. It will be used to test the nuclear, biological and chemical protection aspects of the system.

--Comparison test I - a 6 month government test to be conducted in July - December 1985. Its purpose is to evaluate correction of deficiencies/shortcomings disclosed during DVT and IPT, as well as detect quality deficiencies and assess reliability, availability, and maintainability.

--Follow-on evaluation I - an operational test scheduled in early 1986.

ACQUISITION STRATEGY

In our past reports on the Sgt. York gun system, we have commented on the Army's unique acquisition strategy. Our early concerns involved the limited amount of testing which would be addressed before the award of the production contract. This included the fact that some important development testing, including durability tests, would not be addressed until after the production contract was to be awarded. Also, we were concerned

over the extent to which the Army's development test and logistics agencies would be able to assess test results before the production decision. We also reported on program risks inherent in the "skunk works, hands-off" strategy to be employed. This was a strategy under which the two competing development contractor's would be given latitude in designing a system to meet the Army's requirements with a very minimal government management and surveillance over those contractors during the initial 29-month development period.

These risks involved

--Serious development problems may be detected too late to provide time for correction.

--Solution of development problems may be delayed because of the rigid schedule and management provisions of the contract.

--Information on the progress of the development program may be inadequate to justify funding needs to the Office of Management and Budget, the Office of the Secretary of Defense, and the Congress.

In our last review, we reported that until the acquisition strategy had run its course, an assessment of its success or failure would be premature.

In our current review, which is still on-going, we are concentrating on system maturity and testing and production deliveries. We have, however, observed extensive management and

day-to-day involvement by the Army in all aspects of the program. The system contractor's responsibilities, in terms of program decisions, are primarily controlled by the Army's formal Phase II multi-year development-production contract, awarded in May 1981 and directions given by the Army's project office. This office is supported by the Army's procurement activity and other technical components of the Army's Munitions and Chemical Command. In addition support is provided by, or responsiblities delegated to, other Army technical organizations such as its Materiel Systems Analysis Activity, Operational Test and Evaluation Agency, and Test and Evaluation Command. All of those elements are involved in the decision-making process.

The program is still based on concurrent development-testing and production. Initial production units have been, and are being, delivered. As mentioned earlier much testing is currently going on or planned in the near future. However, due to the late deliveries of the initial gun systems, and changes in test plans from the original strategy, including the addition of tests not originally planned, there is less concurrency and more test information available now than would have been under the program as originally conceived.

ADEQUACY OF TEST INFORMATION PROVIDED TO DOD AND THE CONGRESS

As you know, Mr. Chairman, at your request we have been looking at the reporting process for operational test results in the Department of Defense. More specifically, we looked at the adequacy of operational test and evaluation data contained in the Congressional Data Sheets. Our review is about complete and we are preparing our report to you.

With respect to the Army we have found that the Data Sheets we reviewed omitted certain information on testing limitations and safety related deficiencies that should have been included. For example, to demonstrate the durability and reliability characteristics of the Sergeant York, a test was planned to fire 15,000 rounds of ammunition and to travel 4,000 miles. Because of time limits, only about 3,600 rounds were fired and due to frequent subsystem failures the weapon traveled less than 300 miles. Rather than indicating that the testing was the minimum required to address specific critical issues the Data Sheet noted only that the number of events conducted were less than planned.

Contributing to the inadequacy of the reporting of test results in the Army is a condition which we reported on last February[2]. We found that several Army groups were performing test and evaluation on weapon systems and the results were being reported piecemeal with no one responsible for interpreting the overall cumulative effect of the test results. In response to our report the Army has started a pilot program in which its Operational Test and Evaluation Agency will consolidate the various test results and provide an overall evaluation. This should improve the quality of test and evaluation information being reported to acquisition officials.

This concludes my prepared testimony. I would be happy to answer any questions you might have. Thank you.

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[2]The Army Needs More Comprehensive Evaluations to Make Effective Use of Its Weapon System Testing (GAO/NSIAD-84-40, Feb. 24, 1984)

Chairman ROTH. The committee is in recess.

[Whereupon, at 10:55 a.m., the committee was recessed, subject to the call of the Chair.]

APPENDIX

DEPARTMENT OF DEFENSE
INSPECTOR GENERAL
WASHINGTON, D.C. 20301

14 SEP 1984

Honorable William V. Roth, Jr.
Chairman, Committee on
Governmental Affairs
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

In answer to your letter of May 4, 1984 regarding the Division Air Defense Gun System, I am enclosing a copy of the results of our review. Several recommendations have been developed to strengthen the Defense Systems Acquisition Review Council (DSARC) process. Those recommendations have been provided to the Under Secretary of Defense for Research and Engineering, who is the Department of Defense's acquisition executive. He concurred with the recommendations and a copy of his reply is enclosed.

Regarding the specific case of the DIVAD Gun System DSARC meeting, it is important to note that our review was concentrated on a process that took place over two years ago. Our review concludes that the process was far from optimal. I have no way of knowing whether the decision reached two years ago would have been different had the process been better. However, the combination of the problems we found plus the additional information, both from testing and relative to the threat, which has been generated since May 4, 1982 suggest a fresh review by DoD decision makers before additional commitments are made to DIVAD production. The Secretary of Defense has directed that such a review be made.

Thank you for your interest in this matter.

Sincerely,

Joseph H. Sherick
Inspector General

Enclosures

Upon removal of attachments
this document becomes
Unclassified

Review of Hotline Complaint C-401

Hotline Complaint:

(U) Allegation: Test data presented by the Army to the Division Air Defense (DIVAD) Gun System Defense Systems Acquisition Review Council (DSARC) meeting held on May 4, 1982, were known to be faulty, specifically system engagement kill probability was overstated and system reaction time was understated.

Background:

(U) The DIVAD Gun is a completely integrated system mounted on a self-propelled, tracked vehicle. The hardware consists of four major subsystems: armament, radar directed fire control, power and activation and a Government-furnished modified chassis. The DIVAD Gun Program features an accelerated unconventional acquisition approach designed to achieve Initial Operational Capability (IOC) in the minimum possible time, which was approved at DSARC II. A feature of this program is minimum Government management which allows the contractor to operate using a "skunk works" concept and using his technical judgment and experience to best advantage. Government testing, a combined Development Test/Operational Test (DT/OT), emphasized collection of data on the essential performance, operational, and supportability characteristics of the system. The planned testing represented an optimistic attitude toward a new acquisition approach. Because of the level of system maturity and the inability to satisfy DT/OT objectives during contractor testing, the time allotted for the Government test was insufficient to accomplish all the planned tests. As a result of deficiencies discovered during the DT/OT, a follow-on Check Test was planned to confirm contractor generated fixes prior to entering the DSARC III production decision process.

Threat:

(deleted)

DSARC Process:

(U) The DSARC conducted for the DIVAD Gun featured a series of prebriefs and deskside presentations by the Army to the DSARC principals and their staff. The process culminated in a meeting of the DSARC principals, who participated in discussions with the Army on unresolved issues. The Secretary of Defense approved DIVAD production in May 1982. The DSARC was not conducted in accordance with existing directives in that all required documentation was not available in the specified time frames.

Conclusions:

(U) The presentations by the Army during the DSARC III process depended heavily on data derived from the Development Test (DT) portion of the Check Test conducted in the fall of 1981. The results of the Operational Test (OT) and Electronic Countermeasures (ECM) test portions of the Check Test were not made available and only selected items were addressed. The complete OT results were not released by the Army Operational Test and Evaluation Agency until November 1982, several months after the final DSARC III decision in May 1982.

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(U) Use of these two additional parameters in constructing Engagement Kill Probability versus Range would produce an outcome supportive of the PA&E position with regard to expected performance.

DSARC Held Too Soon:

(U) PA&E's analysis was based on only sketchy information obtained from the Army tests, but did consider performance degradation factors on a conceptual basis. It is our opinion that the DIVAD System was not ready for a DSARC review since all of the test results were not available to all participants to support either the pro or con positions fully. Check Test results were not available until 7 months (November 1982) after the DSARC decision. The current COEA at the time of the 1982 DSARC III was of a 1977 vintage. Statements by the participants

indicated that they were aware of this shortcoming. In a complex battlefield environment, assessment of system effectiveness has to be calculated from a multiplicity of interacting parameters. Neither side of the argument about DIVAD was fully supportable since each viewed only selected parameters. Prior to convening of a DSARC review, it is necessary for the latest measured parameters of a system to be incorporated into an analysis that can play each parameter in relationship to the others to make an educated evaluation of system effectiveness. In the case of DIVAD this was not done.

DSARC Documentation:

(U) Our review of the DIVAD DSARC III was hampered by a lack of documentation of the issues that were addressed and the context in which they were presented. The DIVAD DSARC process consisted of a series of prebriefs addressing controversial issues. In this case, we found no evidence that results of the prebriefs were forwarded to the DSARC principals for their consideration. There are requirements for Draft, "for comment," documentation 90 days prior to DSARC and final documentation 3 weeks prior to DSARC contained in DoD Instruction 5000.2. We believe that the conduct of the DIVAD DSARC demonstrates that enforcement of existing documentation requirements is not uniformly applied and that the process should be strengthened by requiring compliance with all existing instructions before a decision is rendered.

(U) While it is understood that high level decisionmakers must depend on staffs to understand the fine points of program issues, we believe that it is also necessary that the fine points be synopsized with rationale supporting any lower level resolutions so that the decisionmakers are fully aware of any tradeoffs that have been made and the arguments of both sides on unresolved issues.

Current DSARC Guidelines:

(U) The philosophy of controlled decentralization as espoused by the current administration, whereby centralized policy decisions are made and delegation of execution authority is given to the performing services, requires that hard checkpoints be established at critical milestones in order that program control be maintained. The DSARC process, as presently formulated, does not provide sufficient insight to the decisionmakers. The DIVAD program is an example of the failures of the process. Under the current operating structure, the OSD staff members, who are responsible for formulating policy decisions, are not made aware of programmatic issues and shortcomings. To establish control at the decisionmaking level the DSARC process must be updated to insure that pertinent program information is available. In the case of DIVAD, the hands-off approach at the OSD level did not allow a sufficient information flow to occur utilizing the

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current DSARC structure. As a result, at the important production decision point, full disclosure and discussion of relevant issues did not occur.

(U) This statement is supported by the fact that the primary purpose of the Check Test, as stated in the OTEA final report on the DIVAD Gun Operational Check Test, was to provide information to support the Army Systems Acquisition Review Council (ASARC) III of March 1982 and subsequent DSARC III production decision. Despite the fact that the Check Test was completed in December 1981, the results were not analyzed and summarized until November 1982 (per Army testimony and documentation). Nonetheless, the DSARC was held in May 1982 without the benefit of having reviewed operational test results which is the most important documentation required to support a Milestone III production decision.

Agencies Contacted:

Army Deputy Chief of Staff for Research, Development & Acquisition

Office of the Under Secretary of the Army

Army Material Systems Analysis Agency

Army Operational Test and Evaluation Agency

DIVAD Program Manager

Office of the Director, Program Analysis and Evaluation

THE UNDER SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301 3010

RESEARCH AND ENGINEERING

31 AUG 1984

(AM)

MEMORANDUM FOR THE INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Comments on IG Memo on DIVAD and DSARC Process

The following comments are provided on your 17 August 1984, recommendations regarding the DIVAD Gun Program and DSARC process. In general, we concur with your specific recommendations regarding the DSARC process since your recommendations essentially validate the current policies and procedures being followed.

Recommendation 1

We concur in your recommendation that appropriate OSD decision making officials take a fresh look at the DIVID Gun Program. As you have noted, we are already in the process of doing just that. The Army has briefed SECDEF twice and will return for a final briefing in approximately 1 month. Selected OSD organizations have participated and have provided independent assessments to SECDEF during these briefings. We expect a SECDEF decision near the end of September.

Recommendation 2a

We concur in your recommendation that existing DSARC documentation schedules as required in DoDD 5000.1 and DoDI 5000.2 be enforced. We pay particular attention to programs that have slipped and demand more attention to documentation on a case-by-case basis. We are unable to understand why you have questioned the DIVAD DSARC III documentation since both the Decision Coordinating Paper (DCP) and Test Evaluation Master Plan (TEMP) were submitted by the Army and reviewed by the OSD staff prior to DSARC. The Army's OTEA and AMSAA reports referenced in the IG hotline are not required DSARC documents but rather feed into the information provided to the Deputy Director of Test and Evaluation. His written report to the DSARC principals in turn summarizes his independent evaluation of the testing status of the program.

Recomendation 2b

We concur that the Service(s) must be required to document their plans and status to the DSARC in a timely and comprehensive manner. Again, this is aready being accomplished. The DCP per DoDI 5000.2 and TEMP per DoDI 5000.3 succinctly document the program plans and status by the Service(s) as you recommend. The DCP and TEMP are required in draft form 3 months before DSARC. OSD then provides comments on these draft

documents and a final version is required 15 working days before DSARC. These documents provide for a timely and complete OSD staff review of the program and become a permanent part of the DSARC file maintained by the DSARC Executive Secretary. We also require that the Service(s) brief the CAIG on cost, DDT&E and DOT&E on test plans/results, DIA on threat, and MI&L on logistics. If these briefings surface issues,they are discussed at the OSD pre-brief which occurs approximately 2 weeks before the DSARC meeting.

Recommendation 2c

We concur in your recommendation that the DSARC meeting be postponed when the Service(s) fail to meet the documentation requirements. Normally, we postpone a DSARC when the required documentation has not been submitted. DSARC meetings must occur when the proper data are available to address the issues. Often these data require completion of tests or analyses and if these items slip, we normally postpone the DSARC. It should be noted that requests for change in DSARC meeting schedules by the Service are on occasion denied or accommodated only in part if it is felt that a meeting can accomplish something. For example, we forced the Air Force to come to DSARC in July 1984 on the Mark XV even though they had requested a delay because we wanted to maintain momentum in that crucial joint Service program. We would also like to note that your 20 June 1984 draft summary report on the effectiveness of the DSARC chastised us for slipping scheduled DSARC meetings.

Recommendation 2d

We concur that the DSARC principals must be provided a clear summary of program plans, status, and significant issues raised by the OSD staff. DoDI 5000.2 provides for a pre-brief 2 weeks before DSARC that focuses on issues. The DSARC pricipals and advisors meet with Dr. Wade to review the remaining significant issues and Dr. Wade signs a memo to the Service(s) requesting that those issues be covered by the Service(s) in the DSARC meeting. In the case of the DIVAD, Dr. DeLauer, on April 28, 1982, provided the Army a list of remaining issues clearly identifying cost effectiveness, acquisition strategy, and readiness/support risk reduction as issues to be addressed at the May 4, 1982, DSARC III on DIVAD. Prior to DSARC, the DSARC Executive Secretary prepares a read-ahead ("bluebook") that includes the DCP, T&E report, CAIG report, MI&L report, DIA report, and the pre-brief issues noted above to each DSARC principal and advisor. At the DIVAD DSARC III, PA&E felt so strongly about the cost effectivenss issue that they provided their own briefing to the DSARC which is not normally done. We do not document the issues raised and resolved by the OSD staff because we want to focus the decision maker's attention on the significant issues that remain. Documenting non-issues would create a sea of paperwork that would only confuse the decision makers, so we do not concur in this aspect of your recommendation.

In summary, we feel that you have provided no evidence or strong rationale for changing DSARC procedures. In fact, from a process standpoint, it is functioning almost exactly as you recommend. In the case of DIVAD, the required documents were provided well in advance of the meeting and the issues were clearly illuminated and discussed. As DDT&E has already indicated, the test data available at the time was preliminary in nature. A decision was made based on the best information available at the time and the program is now being reviewed in detail by the Secretary.

Kluck